

# OIL FIELD STRATIGRAPHY OF KENTUCKY

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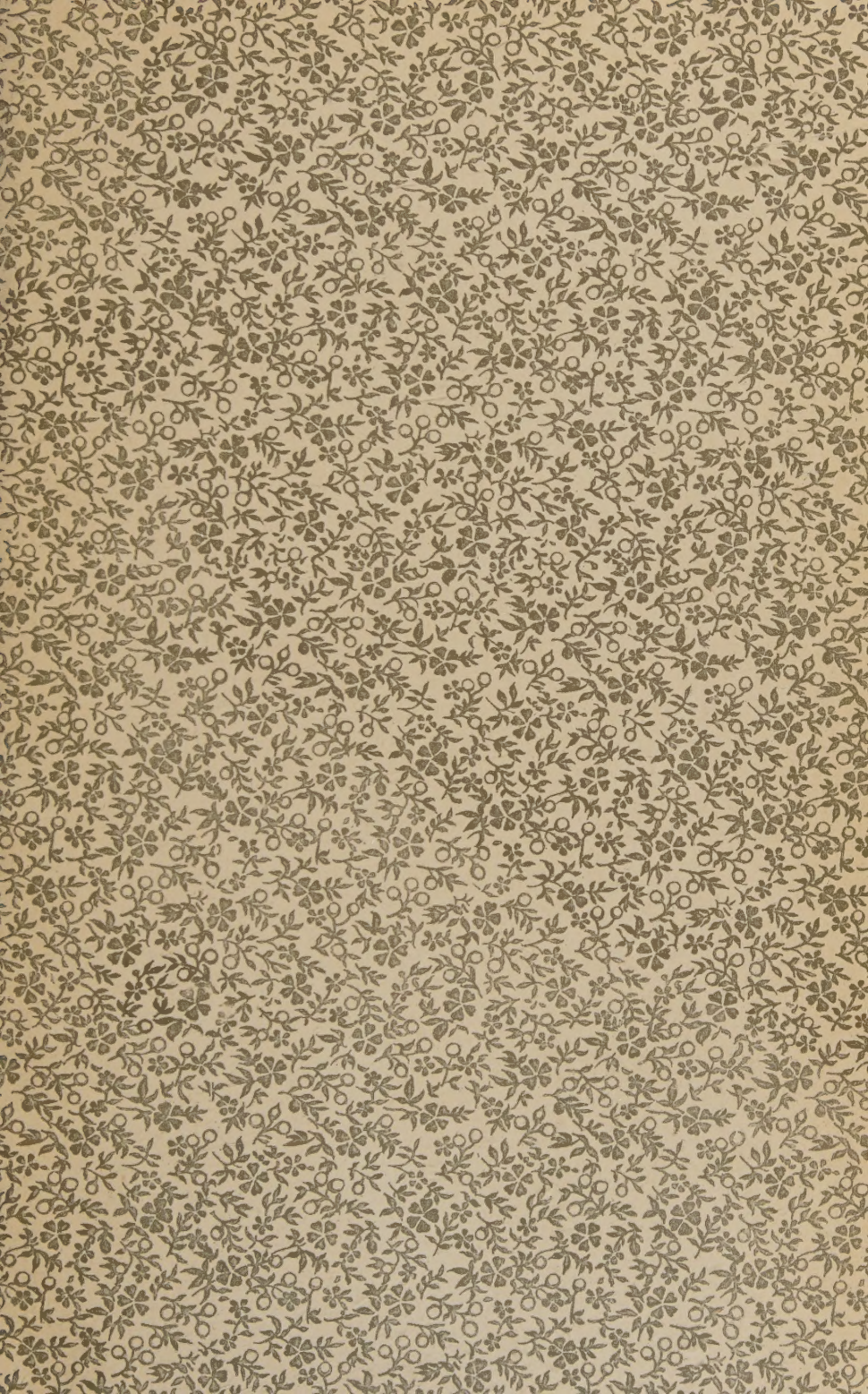
WILLARD ROUSE JILLSON


















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*The*  
*Kentucky Geological*  
*Survey*

WILLARD ROUSE JILLSON  
DIRECTOR AND STATE GEOLOGIST



SERIES SIX  
VOLUME THREE

*Oil Field Stratigraphy*  
*of Kentucky*  
1922





THE MOST PRODUCTIVE OIL "SAND" IN KENTUCKY.  
Detail of the outcrop of the Onondaga limestone (Corniferous "sand") on the L & N. R. R., Northwest of Irvine.  
The cherty "hornstone" characteristic is at once apparent.



# OIL FIELD STRATIGRAPHY OF KENTUCKY

A Systematic Presentation of the Several Oil Sands of  
the State as Interpreted from Twelve Hundred  
New and Detailed Well Records



By

**WILLARD ROUSE JILLSON**  
DIRECTOR AND STATE GEOLOGIST

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AUTHOR OF

OIL AND GAS RESOURCES OF KENTUCKY  
CONTRIBUTIONS TO KENTUCKY GEOLOGY  
ECONOMIC PAPERS ON KENTUCKY GEOLOGY  
PRODUCTION OF EASTERN KENTUCKY CRUDE OILS  
ETC.

*Illustrated with 35 Photographs  
Maps and Diagrams*

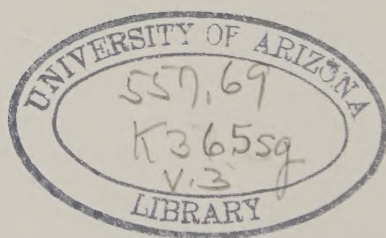
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## PREFACE

The oil resources of the State of Kentucky have demonstrated their great importance to the economic prosperity and growth of the Commonwealth. In 1918 Kentucky produced 4,308,893 barrels of crude oil valued at \$11,128,421. This was more than doubled in 1919, when 9,226,473 barrels were produced valued at \$24,459,017. In 1920 due to steadily increased prices paid for crude oil, the total value of Kentucky crude again jumped and reached the large figure of value of \$33,525,210; while the volume slowly declined to 8,546,027 barrels. The loss during the year 1920 was therefore nearly 700,000 barrels. Recently completed figures of petroleum production for Kentucky for the year 1921 again show an increase of 534, 818 barrels over the year 1920, or at a total petroleum production for 1921 of 9,080,845 barrels valued at \$16,674,969. This increase, which is regarded as temporary, has been due entirely to the new pools found in Johnson, Magoffin, Lawrence and Warren Counties, for the main producing pools of Lee County have declined steadily.

In view of this critical condition of the oil producing industry in Kentucky, it has been regarded as worth while to present an up to date study of the oil sands of the State as interpreted from representative records selected from the large amount of recent drilling. The idea had its inception in the minds of a number of practical operators who have anticipated the value of such a report to drillers generally, and especially those working in "wildcat" localities. It is hoped that the practical values so earnestly predicted may be realized, and that this volume containing over 1,200 new and, heretofore unpublished Kentucky well records, may be the source of much general information as well as assistance in staying the declining oil production of this State.

*M. R. Gillson*

Director and State Geologist  
Kentucky Geological Survey

OLD CAPITOL  
Frankfort, Ky., Jan. 1, 1922.

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OIL FIELD  
STRATIGRAPHY  
OF KENTUCKY





## CHAPTER I.

### OIL AND GAS SANDS.

#### Historical.

The first serious attempt to correlate the strata in which oil and gas occur in Kentucky was made in 1888-1889 by Edward Orten, the celebrated Ohio geologist, who made a personal reconnaissance of the western portion of this State for the Second Kentucky Geological Survey.\* Excellent results attended this early petroleum investigation, though it followed closely upon the opening of the first oil and gas fields of Pennsylvania, Ohio and Indiana. Among the fundamental points established was the productive nature of several "sands" in Kentucky. Chief among



BLOCKS OF "BEAVER SAND."

These weathered fragments of a ledge of "Beaver Sand" (New Providence Limestone) well illustrate the effects of differential weathering. This outcrop, which is four feet thick, occurs surrounded by the characteristic blue-green shales on Beaver Creek in Wayne County.

These were: (1) the Trenton (Middle Ordovician) limestone series in southern Kentucky; (2) the Clinton (Silurian) limestones of Barren County; (3) the Devonian black shale in Meade County; (4) the lower

\*Report on the occurrence of Petroleum, Natural Gas, and Asphalt Rock in Western Kentucky. Edward Orten. Kentucky Geological Survey, Series II, 233 pp., 1891.

Mississippian limestones and shales in Allen, Barren, Warren and Breckinridge counties; and (5) the Pottsville and Allegheny (Pennsylvanian) "sands" in the Western coal field.

Today all of these determinations still stand correct, except the second, which is now known to be the Niagaran (Silurian), instead of the Clinton. Yet this early report had something of incompleteness about it, for the Corniferous (Devonian) and Niagaran (Silurian) limestones, which have been responsible when taken together for the greater portion of the oil produced in western Kentucky, were not recognized as oil producing horizons. Furthermore, the Berea and Wier (Mississippian) now so well and favorably known in eastern Kentucky were at this time quite unsuspected as large petroliferous sources.

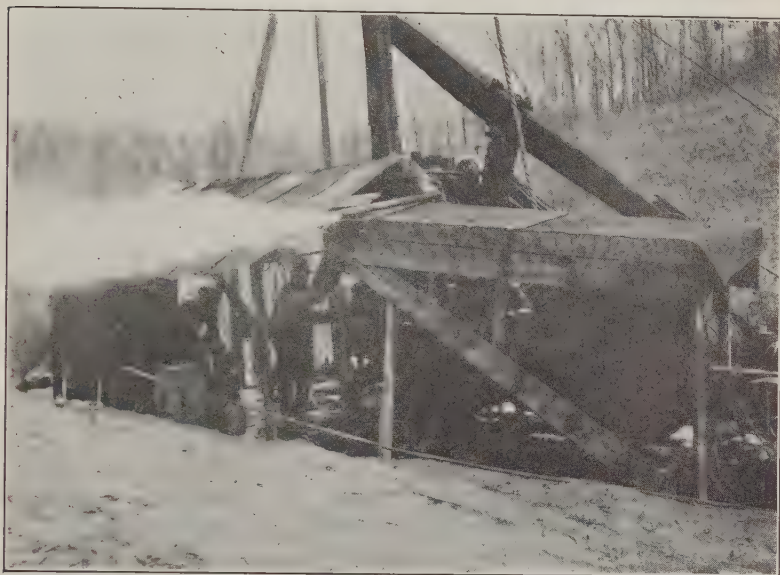
In 1904, Joseph B. Hoeing, later the sixth State Geologist of Kentucky, prepared the second report on the oil and gas sands of Kentucky.<sup>†</sup> Coming at a much later date, and after a sixteen-year period of state-wide prospecting, Mr. Hoeing's report added much to the conclusions already presented by Dr. Orten. Hoeing's statement of the order and sequence of the various oil and gas producing strata was, with one or two exceptions in reference to the Ordovician, quite correct, and stood for many years to follow. He added to Orten's list a number of important sands, among which are the following:

- (1) Knox Dolomite (Cambro-Ordovician), southern Kentucky.
- (2) Calciferous (Ordovician), state-wide.
- (3) Sunnybrook (Ordovician), southern Kentucky.
- (4) Clinton (Silurian), of Morgan County, Kentucky.
- (5) Niagaran (Silurian), of Barren County, Kentucky.
- (6) Corniferous (Devonian), of Estill, Menifee, and Bath counties, Kentucky.
- (7) The Beaver (Mississippian), of Wayne County, Kentucky.
- (8) Oil City (Mississippian), of Barren County, Kentucky.
- (9) Berea (Mississippian), of Eastern Kentucky.
- (10) Big Injun (Mississippian), of eastern Kentucky.
- (11) Big Lime (Mississippian), of eastern Kentucky, and
- (12) The four separate sands of the Pottsville (Pennsylvanian) in eastern Kentucky.

The contribution to the knowledge of the petroleum geology of Kentucky made by Hoeing was notable; yet, in the light of the great advances made in the drilling of this State in the decade and a half which followed, it finally came to be considered incomplete. In 1919, fifteen years after the preparation of the "Oil and Gas Sands of Kentucky," the writer presented a new discussion\* on the oil stratigraphy of Kentucky which elaborated considerably upon the work of both Orten and Hoeing.

<sup>†</sup>The Oil & Gas Sands of Kentucky, J. B. Hoeing, Ky. Geological Survey, Series III, Bull. I, 233 pp., 1904.

\*Oil and Gas Resources of Kentucky. W. R. Jillson, Ky. Geol. Survey, Series V, Bull. I, 630 pp., 1st and 2d Eds. 1919, 3d Ed. 1920.



AN EASTERN KENTUCKY DRILLING.

The J. C. Hunter No. 1, drilled by the Ohio Oil Co. near Sandy Hook, Elliott County, in 1921. The rig is of the portable type but the derrick floor has been roofed over as a protection against bad weather.

At the present time there may be added to the list of "sands" enumerated the following "sands" which appear to have a rather important bearing on the oil industry in Kentucky:

(1) "Deep" sand (Niagaran-Silurian) of Allen, Simpson, Edmonson, Butler, and Warren counties; (2) "Wier" sand (Mississippian) of eastern Kentucky; (3) "Shallow" sand (St. Louis-Mississippian) of Warren, Logan, Butler, Simpson and Edmonson counties; (4) "Maxton"\* (Mauch Chunk-Mississippian) of eastern Kentucky; (5) "Sebree" (Allegheny-Pennsylvanian) of Union and Henderson counties; (6) the "Penrod" (Chester-Mississippian) of Muhlenberg County; (7) "Pellville" sand (Chester-Mississippian) of southern Hancock and northern Ohio counties; (8) "Shallow" sand (Niagaran-Silurian) of Olympia, Bath County and Stanton, Powell County, and other eastern Kentucky oil pools. The producing possibilities of the Warren County "shallow sand" is now well known but the ultimate possibilities of the "Wier" and "Maxton" (Mississippian) in eastern Kentucky, and the "Sebree" (Pennsylvanian) and "Penrod" (Mississippian) in western Kentucky, all of which with the exception of perhaps the last are true silica sands, cannot be estimated at this time.

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\*Frequently corrupted into "Maxon."



### Oil and Gas Sands of Kentucky.

Since it is simply the purpose of this work to set forth the sequence of oil and gas sands as recognized by the oil driller in Kentucky for the use of all who may be interested in the oil and gas industry in this State, and especially the practical man, no attempt will be made to present the extreme fullness of detail descriptive matter available.



A GROUP OF OIL SCOUTS.

Important test wells drilled in possible new oil territory generally draw the attention of oil men about the time the "Sand" is reached. These men are watching a new well in Martha district of Lawrence County.

While the experienced oil and gas operator recognizes that no well record can ever be presented on a printed page in a form more accurate than that in which it is prepared by the driller, and that inaccuracies of one form or another are inherent undoubtedly in every log, he knows that the best record available is the best information on which to base further drilling. Stratigraphers who regard as basic the law of changing measurements of outcrop sections within the same series and even short distances, have been slow to realize that the same law applies to sub-surface stratigraphy—the stratigraphy of oil and gas wells. There has been too much of an attempt on the part of many to try and harmonize well records with known surface measurements, a practice which while it gives an air of finish to a report, cannot assist the practical man at all. It is a bit of square peg and round hole labor that does not produce oil. The important thing for both the professional and practical man working in oil

field stratigraphy to do, is to recognize the several horizons penetrated by the bit, and learn their lithologic character, and their productive or non-productive measurements.

In the light of these considerations, which are fundamental, this book preempts a special geologic field to itself, and does not compete with the standard works on the stratigraphy of Kentucky or adjoining States. The following statements are principally based, therefore, upon an intelligent and practical interpretation of many well logs. All descriptions and conclusions have been condensed as much as possible in the interest of the practical oil man, who is justifiably more desirous of securing an adequate summary of the nature of the producing oil and gas sands of Kentucky than he is in a detailed account of its stratigraphy on outcrop.

### **Knox Dolomite.**

Considered in ascending order, the lowest and oldest formation referred to as a possible oil producing "sand" about which anything is known in Kentucky is a "sand" which occurs at a depth ranging from 1,350 to 1,385 feet below the base of the Chattanooga (Devonian) black shale in the Beech Bottom section of southeastern Clinton County, Kentucky. This "sand" is regarded, by some, as occurring below the Trenton and the Calcareous, and has been referred\* to the Knox Dolomite (Cambro-Ordovician) though the ultimate decision is yet in question, due to lack of sufficient detailed information of a paleontologic and lithologic character. In this region the Devonian and Silurian limestones are regarded as missing, and no outcrops as low in the Paleozoic section occur nearer than Jacksboro, Campbell County, northeastern Tennessee, a point forty miles distant in an air line. Further investigations will undoubtedly lead to a definite decision concerning this deep "sand" which is either of Lower Ordovician or Upper Cambrian age. In eastern Tennessee the Knox Dolomite (Cambro-Ordovician) attains a maximum thickness of about 3,500 feet. It is a light to dark magnesian limestone with many chert nodules, and with this description the cuttings from the Beech Bottom sand seem to agree. In the Beech Bottom region of Clinton County oil was found in the Geo. Smith No. 1 (lessor) well at a depth of 1,728 feet, and produced about five barrels of high gravity green oil from 1,770 to 1,780 feet in depth. Chemically it was a magnesian limestone, fine in texture, and the sand as cut from the bit resembled very fine beech sand. In the Pickett and Fentress counties at the south and southeast in Tennessee a similar if not indeed the same "sand" is recognized at a depth of from 1,562 to 1,617 feet, which is at a "top" depth of 1,335 feet below the Chattanooga (Devonian) black shale.

### **The Calcareous.**

At some distance above the Knox Dolomite, possibly of Beekman-

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\*Administrative report of the State Geologist, Wilbur A. Nelson, Nashville, Tennessee, 1920. Tenn. Geol. Survey, Bulletin No. 25, page 57.

town age, occurs a hard, sandy limestone which has been correlated with the St. Peters' Sandstone, and is known as the "Calceiferous" (Lower Ordovician). This "sand" produced commercial quantities of gas in Estill and Hardin counties some years ago, but has been unproductive elsewhere in the State so far as known. While a remote gas producing possibility in deep wells, it does not hold forth much prospect as an oil producer in this State, as the large number of costly tests which have penetrated it at widely separated points clearly indicate.



OILY LITTERAL FORK.

A drilling of the Carter oil on the head of Litteral Fork, Magoffin County. This well sprayed oil over the derrick as may be noted on the darkened beam.

### The Trenton.

Widely prospected in Ohio, Indiana, and Illinois, where it is a large producer of both oil and gas, the Trenton "sand" (Middle Ordovician) can only be regarded as one of the minor oil sands of Kentucky. A shaly and somewhat cherty limestone series of considerable thickness on its outcrop in central Kentucky, the Trenton appears to be of very similar lithologic character in the productive regions of Wayne, Clinton, Russell, Cumberland, Barren and Monroe counties in southern Kentucky. The oil produced is a fairly high though not uniform gravity, and the wells are characteristically small, ten to fifteen barrels being about the maximum settled yield. Productive horizons are of irregular occurrence, depth, and thickness. The lower Sunnybrook sand of Wayne County is undoubtedly of Trenton age.



### Upper Sunnybrook.

Overlying the Trenton series, in a limestone group, occurs the Upper Sunnybrook (Upper Ordovician) "sand," which is a correlative of the Caney sand, the Barren County "Deep" sand, and the Cumberland County "Shallow" sand. Like the underlying Trenton, the series in which the Sunnybrook is found is mainly calcareous, but exhibits some intercalated blue calcareous shales. The oil production secured is generally small, though of medium high grade. The series itself is thick, ranging from 400 to 700 feet. This "sand" has been tested generally without success over a very wide area in Kentucky, and for this reason its future is not regarded as very promising from an oil producing standpoint.

### Niagaran.

Omitting the Clinton (Middle Silurian), which is practically of no importance in Kentucky, we come to the Niagaran group of limestones and shales which have recently come to take a rather important producing position in Allen, Barren, Warren, Simpson, Butler and Edmonson counties in western Kentucky, and in Bath, Rowan, Powell, Breathitt and other counties in eastern Kentucky. In Warren County this sand is known among the drillers as the "Deep" sand, and is penetrated by the bit west and northwest of Bowling Green at from 60 to 75 feet below the Chattanooga (Devonian) black shale. In productive regions it generally carries one or two oil pays. The Niagaran oil is dark green and of excellent grade. Wells producing 50 to 100 barrels in a test are not uncommon, and the "staying" qualities of the "sand" has been the cause of much meritorious comment. Though not generally recognized as such, the Niagaran is very probably one of the contributing though possibly small sources of the oil contained in the Corniferous in the larger fields located along the Pottsville outcrop in eastern Kentucky. It also shows commercial oil and gas "pays" of its own over a large part of eastern Kentucky.

### The Corniferous.

The chief producing sand of Kentucky is the Corniferous (Devonian) limestone. This formation is probably of Onondaga age and is responsible for the oil secured in eastern Kentucky in the counties of Estill, Lee, Powell, Wolfe, Menifee, Jackson, Bath, Rowan and Morgan, where the production is secured just below the Chattanooga (Devonian) black shale. This "sand" is a magnesian limestone of a very irregularly cherty or "hornstone" characteristic, somewhat creviced, and ranging in thickness One, two, and sometimes three pay sands are encountered inside of this limestone, depending upon the locality. The Corniferous limestone is the chief oil "sand" of the Big Sinking pool, the largest producing pool in Kentucky. Its areal distribution is somewhat limited, since it does not cover the Blue Grass in Kentucky at all, and is absent in the Cumberland River Valley of southern central Kentucky, and is also probably absent under cover in some of the central southern Kentucky counties.



THE DEVONIAN BLACK SHALE.

This shale variously called the Ohio, the Chattanooga and the New Albany is one of the most widely known in Kentucky. Here is shown an exposure 75 feet in thickness near Clay City, Powell County.

### Black Shale.

One of the outstandingly plain stratigraphic horizon markers in Kentucky is the black (Upper Devonian) shale, variously called the Ohio shale in northeastern Kentucky, the New Albany shale in western Kentucky, and the Chattanooga shale in southern Kentucky. It is well known to every oil operator and driller, and is a convenient dividing line for the stratigraphy of the State. In southern Kentucky the Chattanooga shale is a unit with the Sunbury (Mississippian) black shale of northeastern Kentucky and Ohio, and their line of demarkation is seldom outlined. These two shales, so alike in their lithologic characteristics, may fortunately be regarded as one, where they so occur, in so far as the driller is concerned, since neither one of them is productive of natural petroleum, and only very occasionally of natural gas. So infrequently is gas secured in the Devonian black shale that it is not considered except as a marker by the average driller. And yet it is one of the most extensive bituminous sediments in Kentucky.

Meade County years ago produced considerable gas from a "sand" lens in the shale, and some Floyd County gas has been referred to a similar horizon. But outside of these two localities this formation is not known to carry any porous or reservoiring strata, and is unproductive of natural petroleum and natural gas in Kentucky. Lithologically it is of a finely laminated bituminous nature, and is the formation which it is proposed to retort for artificial oil through processes of oil shale destructive distillation. In thickness it ranges from about twenty feet in some central "Knobs" counties to several hundred feet in the extreme portions of eastern and western Kentucky.

### **Beaver Sand.**

Intercalated between the blue green shale of (New Providence-Mississippian) age, the Beaver oil "sand" of Wayne, McCreary, Clinton, Barren, Allen and Warren counties is a producing horizon of much importance in the southern portion of Kentucky. It is not known to be productive elsewhere. The Beaver "sand" itself is a magnesian limestone ranging in thickness from 2 to 8 feet. It contains a considerable amount of chert, which occurs as more or less isolated nodules where examined on the outcrop. Drilling "sands" also reveal this characteristic. The Beaver "sand" has the qualities of fairly long life, and though none of the wells drilled into it are as large as many which have been drilled into the Corniferous, it is regarded as an important high grade oil producer. The Wayne County oil produced from the Beaver "sand" is the original Somerset grade of Kentucky, and is chiefly handled by the Cumberland Pipe Line Co.

### **Berea Sand.**

Though long recognized as a petroliferous source, the Berea (Lower Mississippian) sandstone may be said to have come into its own as a producer of oil and gas in Kentucky only within the last few years. The chief areas of productivity in Kentucky are those within Lawrence County, though isolated wells occur in Martin, Johnson, Floyd, Elliott, and Boyd counties. The Berea ranges from 40 to 90 feet in thickness, is a true silica "sand," and exhibits one or two pay horizons ranging from 5 to 25 feet. The oil is high grade, and though the wells are for the most part small in oil production, they are long lived. The Busseyville, Fallsburg and Louisa, and adjoining pools are the most productive in Lawrence County.

### **Wier Sand.**

Separated from the underlying Berea sandstone by the easily recognized black Sunbury (Mississippian) shale, the Wier (Lower Mississippian) sandstone of eastern Kentucky which has been correlated with the Cuyahoga (Lower Mississippian) group of sandstones and sandy shales, has become within the last year one of the most important oil and gas producing "sands" in Kentucky. Until 1917 it was unknown as an oil

and gas producer in Kentucky. Its recognition came with the development of the several new and important gas pools of Johnson, Magoffin, Lawrence and Elliott counties. A true silica "sand," its character ranges from fine to medium. In its most productive localities it is found to be fairly soft, requiring frequently, however, a light shot to secure its best producing qualities. It is of a grayish white color when washed out, and in thickness ranges from 30 to 60 feet, with generally one or two pays



OUT CROP OF THE "BEAVER SAND."

This exposure of the well known "Beaver Sand" (New Providence Limestone) occurs on Beaver Creek in Wayne County. The cherty inclusions are well shown. The limestone which originally surrounded the exposed chert has been removed by weathering agencies.

of from 5 to 10 feet, producing a brownish green oil of high gravity. Individual wells show a productive variation of from five to thirty-five barrels. The Wier is regarded as one of the most important and undoubtedly long lived oil producing "sands" of Kentucky.

### The Big Injun.

Of passing interest only is the Big Injun (Lower Mississippian) sand of eastern Kentucky. This formation which is irregular in its thickness, ranging from 5 to 25 feet in thickness, is a calcareous sandstone, productive of both oil and gas over a wide area, but undependable as to offset. The Big Injun oil wells are usually small, being under five barrels, but the oil is of an amber color and is of high gravity paraffin base. Scattered wells are recognized in Lawrence, Johnson, Martin, Floyd, Knox, and other adjoining eastern Kentucky counties. Its occurrence beneath the Big Lime (Mississippian) and the thick Pottsville (Pennsylvanian)





THE SUNBURY AND BEDFORD SHALES.

This exposure occurs at the Junction of siding to Bluestone Quarry one-half mile east of Rockville Station, Rowan County. The Sunbury is clefted above, and the Bedford forms the talus.—Photo by Chas. Butts.

Series in some parts of the southeastern section of this State, notably Pike County, places it at a considerable depth, so that it is drilled only infrequently. Were it not for this fact, more definite information concerning it might be available, including perhaps a better production record.

### The Big Lime.

An oil and gas producing horizon of increasing importance in eastern Kentucky is gradually being revealed in the Big Lime (St. Genevieve-Casper-Glen Dean Limestones) (Chester-Mississippian) by widespread "wild cat" tests. A recognized correlative of the Maxville limestone of southeastern Ohio, and known elsewhere variously as the Greenbrier, Mountain and Newman limestone, it may be seen in almost continual outcrop from the Ohio River near South Portsmouth southwestward along and slightly below the base of the Pottsville (Pennsylvanian) conglomerate. In Carter, Morgan, Wolfe, Powell, Lee, Whitley and Bell counties it may be seen with something of the same characteristic that is found by the driller in the counties to the east and southeast where, because of the normal dip, it occurs anywhere from a few to several hundred feet below the surface.

As a recognizable unit in eastern Kentucky the Big Lime consists of a heavy bed of hard gray-white limestones, ranging from 20 to 400 feet in thickness. In western Kentucky its correlative attains an even greater thickness and certain "sands" are known to be productive there of both oil

and gas. It is generally separated from the Little Lime above it in eastern Kentucky by a thin shale, but frequently the Little Lime is absent or an integral part of the Big Lime below, and is therefore not recognized by the driller. The Big Lime is principally a gas producer, commercial production being secured in Martin, Knott, Knox, Whitley, and other counties of eastern Kentucky. It is probably productive of gas in many places yet undrilled and certainly contains oil, as recent drilling has shown, not only in Martin on the east and Whitley on the south, but also in Pulaski and



THE BERA SANDSTONE.

This exposure is just south of Vanceburg, Ky., looking west. The sandstone is 22 feet thick.

—Photo by Charles Butts.

Rockcastle counties on the west. The oil produced is of high gravity, greenish brown in color, and similar in other characteristics to that produced from the Weir (Lower Mississippian) sand of Johnson, Magoffin and adjoining counties.

### The Maxton.

Recent drilling campaigns of wide scope undertaken in the interest of natural gas production for public utility uses, have demonstrated that the Maxton (Mauch Chunk-Mississippian) sand of eastern Kentucky is one of the most important productive horizons in the State. Intercallated between "red rock" shales of varying thickness the Maxton occurs as a true silica sand, buff to white in color, and ranges from 5 to 30 feet in thickness. Occasionally it is split by a shale into two members, and not infrequently both sands are productive. The Maxton, foreshortened by many drillers to "Maxon," is now principally recognized as a gas sand in this State, and is productive in Johnson, Magoffin, Floyd, Martin, Pike, Knott, Knox, and Whitley counties. It has produced considerable oil in Floyd County, and is probably potentially productive elsewhere. The

greatest negative factor experienced in drilling to "pay" in the Maxton is its notable irregularity. As an oil sand it exhibits the attractive feature of long life, and as a gas sand it is prolific, though the recent drilling up and extension of the Beaver Creek field in Floyd County has shown that the rock pressure, in some instances at least, has fallen off sooner than was anticipated for a true silica sand of competent thickness.

### Penrod Sand.

A new western Kentucky petroliferous horizon, and a large producer of both oil and gas, the Penrod (Chester-Mississippian) sand of southeastern Muhlenberg County cannot fail to attract considerable attention. The sand occurs at the shallow depth of about 650 feet, and is composed of two members separated by a shale of about ten feet in thickness. The sands are reported to be true silica sands and are from seven to twenty feet in thickness. The upper sand is generally productive of gas, and the lower one shows oil. The upper sand has, however, been found to be barren, and the lower sand a large gas producer. The drilling up of this field will provide much important data.

### Pottsville Sands.

Of wide-spread areal distribution and ample thickness the Pottsville (Lower Pennsylvanian) oil and gas sands have long attracted the attention of oil and gas producers. Recognized as three distinct producing "sands," the Beaver, Horton and Pike in Floyd and Knott counties, and the Wages, Jones and Epperson in Knox County, these petroliferous sands of the Coal Measures were among the first to give commercial oil production in Kentucky, and are today pointed to as possessed of the longest productive life of any Kentucky oil sand.\* The Williamsburg (Whitley County, Ky.) oil and sand is also of Pottsville age, and shows qualities of long life.

The Caseyville (Pottsville) sands of western Kentucky are not now known to be large oil producers, but may be regarded as having excellent possibilities in certain localities. The Nolin River rock asphalt beds are of Pottsville age, and give concrete evidence of a great prehistoric oil pool in Edmonson, Grayson and Hart counties. The same conditions obtain, though on a lesser scale, in the rock asphalt regions of Carter, Rowan, Elliott, Morgan, and Johnson counties. Black tarry oil is now procurable from shallow Pottsville sands in Magoffin County and elsewhere in eastern Kentucky. The prolific petroleum "sand" of Crawford, Lawrence and Wabash counties, Ill., and Gibson County, Ind., located on the La Salle anticline directly north of Henderson and Union counties, Ky., are Pottsville age and suggest interesting oil producing possibilities for this large undrilled area just south of the Ohio River.

The oil and gas sands of the Pottsville, while varying somewhat in

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\*The Howard Purchase No. 1, drilled by Louis H. Gormley at the mouth of Salt Lick, Floyd County, in 1891, was the first well in the Beaver Creek field. It has produced oil continuously from that date to the present, and though now reduced in volume is still commercially important.

thickness, are ample, ranging generally from 50 to 200 feet. The Pottsville conglomerate (basal Pennsylvanian) is much thicker and ranges from a little less than 50 feet in Carter County to about 1,000 feet at the Breaks of Sandy. The sands of Pottsville age are crystal white and angular. Frequently they are loosely and not uniformly cemented, giving rise to irregularity of drilling, production and surface at the outcrop. The oil is of Somerset grade, and dark green in color. In western Kentucky the Pottsville formation reaches a maximum of about 600 feet.

### **The Sebree Sand.**

Unrecognized as a producer of commercial oil and gas before the spring of 1922, the Sebree (Allegheny-Pennsylvanian) sandstone can truthfully be said to offer a large new field for exploration in western Kentucky. The Sebree "sand" is the lowest division of the Allegheny (composed of Carbondale and Mulford), and may be seen at the type outcrop in the range of hills north of the Steamport Ferry road running east of Sebree, Webster County. The Sebree sandstone is about 50 feet in thickness, somewhat massive in appearance, frequently crossbedded, and coarse grained. It is in places somewhat irregularly cemented.

Oil of good quality and in commercial quantity has been secured from the Sebree sandstone in the George Proctor well in Union County close to the Henderson County line just west of Corydon at a depth of 637 feet. Fifty-seven feet of sandstone was drilled, of which the bottom nine feet were "pay." The Sebree sand is known to contain adequate salt water, and favorable structure is assumed to exist with some degree of certainty. The coarse texture and thick shales surrounding the sand indicate for it a most interesting productive future.

*Oil Possibilities.*

### **Other Possible Sands.**

Higher in the geologic time scale than the sediments of Pennsylvanian age, and consequently of more recent deposition, are the semi-consolidated and unconsolidated sands, gravels, shales, clays, marls, and chalky limestones of the Cretaceous and Quaternary Systems, which are found in the Purchase region of western Kentucky. Though some drilling has been done in this region during the last year, notably Fulton and Calloway counties, little has been found to indicate extensive oil and gas producing sands in this area and in these higher geologic divisions. This region has been the subject of a recent report presenting all the known data,\* and while the conclusions thus reached are not too hopeful, it must be admitted that much is yet to be learned concerning the oil and gas producing possibilities of the loose or semiconsolidated sediments of this region. In the southwestern part of the Purchase Region these sediments attain a thickness of about 2,000 feet, and afford an interesting field for oil and gas exploration.

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\*Oil and Gas Possibilities of "the Jackson Purchase" Region. W. R. Jillson, Ky. Geol. Survey. Series Six, Vol. Six, pp. 191-220, 1921.



# GEOLOGICAL SEQUENCE OF THE OIL AND GAS SANDS OF KENTUCKY.

## (With General Lithology in Superimposed Order, and Thickness.)

### (Paleozoic Sediments.)

System	Series or Formation	Sand	Lithology in Order	Thickness in Feet
Lower Pennsylvanian	Alleghany	"Schree"	Massive sandstone	40-60
	Pottsville	"Beaver," "Horton," "Pike," in Floyd, Knott, and Pike. "Wages," "Jones," "Epper- son" in Knox "Williamsburg" in Whitley	Alternating sands and shales and coals with strong conglomerate base	60-1000
<b>MAJOR DISCONFORMITY</b>				
Upper Mississippian	Match Chunk or Flemington (Eastern Kentucky)	"Maxton"	<div> <div>Red shale</div> <div>Sandy shale</div> <div>White sand</div> <div>Shale</div> <div>White sand</div> <div>Calcareous- sand.</div> <div>Fastard lime</div> </div> <div>E. Ky.</div>	30-275
	Chester Group (Western Kentucky)	"Tar Springs" "Hardinsburg" "Cypress"	Sandstone, limestone and thin shales	300-800
	Glen Dean, Gasper, and St. Genevieve	"Big Lime"	White limestone and some oolites	<div> <div>20-400 E. Ky.</div> <div>300-650 W. Ky.</div> <div>50-10 S. E. Ky.</div> </div>
	<b>MINOR DISCONFORMITY</b>		Tan sand lens	
	St. Louis	"Big Lime"	Fine gray white compact lime- stone, cherty	

# DISCONFORMITY, EAST KENTUCKY

System	Series or Formation	Sand	Lithology in Order	Thickness in Feet
Lower Mississippian (Eastern Kentucky)	Waverly (Logan and Cuyhoga)	"Keener" "Big Injun" "Squaw" "Wier" "Perea"	Clastics—sandstones and shales in Eastern Kentucky	500 in N. E. 400—600 in E.
	St. Louis-Warsaw	Varren County "Shallow" "Mt. Pisgah" "Peaver" "Ofter" "Cooper" "Slickford"	Dark blue fine limestone	400—600 Warren
Lower Mississippian (Western Kentucky)	New Providence	} Wayne "Amber Oil of Barren, Warren and Simpson	Blue-green shales and limestones in Western and Southern Ken- tucky	300—350 in S. 200 in S. E. 400 in W.
	Warsaw			

## DISCONFORMITY

Upper Devonian	Ohio or Chattanooga	"Black Shale—Strays"	Black, fissile Bituminous Fine shale	75—Southeast 240—Northeast 200—Southwest
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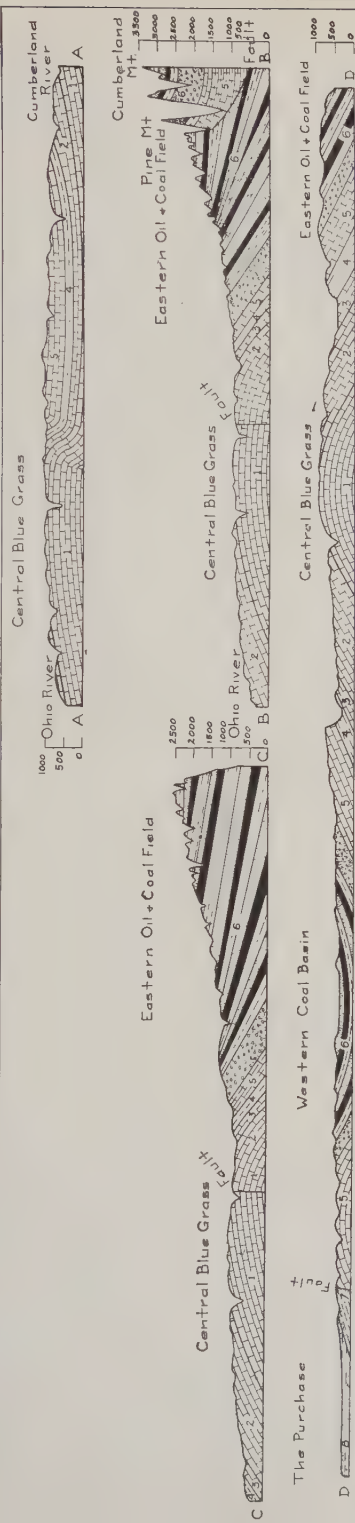
## DISCONFORMITY

Middle Devonian	Hamilton Mononga	"Corniferous" "Irving" "Flagland" or "Campton," etc.	Cement limestone West Kentucky only Cherty magnesian frequently porous limestone	9 0—24 0—45
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MAJOR DISCONFORMITY				
System	Series or Formation	Sand	Lithology in Order	Thickness in Feet
Middle Silurian	Niagaran	"Niagaran" Warren County "Deep" "Olympia" and "Stanton"	Alternating thick shales and then sandy limestones	50—250 E. of Arch 50—200 W. of Arch
		"Clinton"	Light to dark blue to reddish sandy limestone	5—20
MINOR DISCONFORMITY				
Upper Ordovician	Cincinnatian	"Caney" "Upper Sunnybrook" Barren County "Deep" Cumberland "Shallow"	Limestone Blue shales Sandstone	450—700 + or —
DISCONFORMITY				
Middle Ordovician	Hamplianian	"Upper Trenton"— Lexington	Gray granular to Crystalline limestone	270
		"Lower Trenton"— High Bridge	Thick bedded and compact lime- stone	600 +
MAJOR DISCONFORMITY				
Lower Ordovician	Canadian	"Magnesian" "Califerous" and Lower Magnesian (Ind.)	Hard limestone Sandy limestone Magnesian limestone	500 +
Upper Cambrian	Ozarkian	"Knox Dolomite"	Light and dark dolomitic lime- stones (all unexposed)	300 —2500







# DIAGRAMATIC SECTIONS SHOWING THE STRUCTURAL GEOLOGY OF KENTUCKY.

The lettering of these sections corresponds to the lettering of the heavy lines on the opposite sketch map. The numbering of the formations in the sections corresponds to the numbering on the areal geologic map shown on the opposite page. These sections are all drawn to scale and are as accurate as the figures will allow.

## SERIES VI.

## SKETCH MAP INDEXING

THE OIL AND GAS POOLS AND PIPE LINES




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O

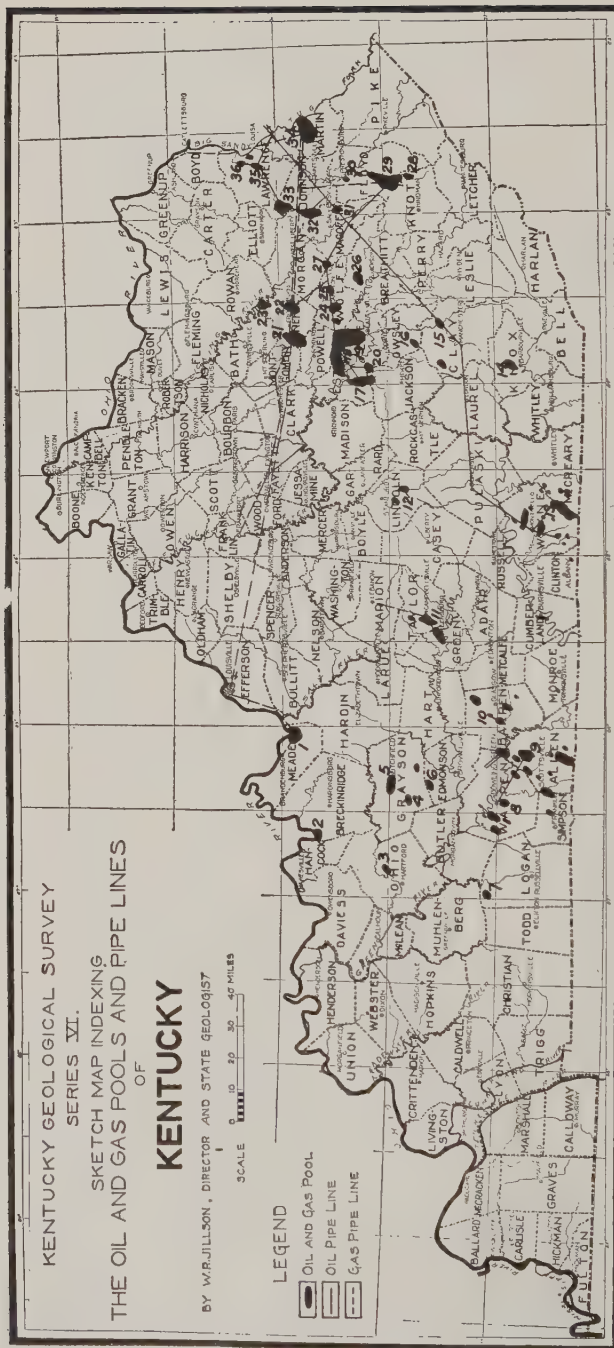
# KENTUCKY

BY W. R. JILLSON, DIRECTOR AND STATE GEOLOGIST



## LEGEND

- |   |                  |
|---|------------------|
|  | OIL AND GAS POOL |
|  | OIL PIPE LINE    |
|  | GAS PIPE LINE    |



SKETCH MAP SHOWING KENTUCKY OIL AND GAS POOLS AND PIPE LINES.  
(For list of pools see appendix.)

## CHAPTER II.

### ADAIR COUNTY.

Production: Small oil and gas. Producing Sands: Unnamed, (Ordovician).

#### Log. No. 1

J. S. Rector, No. 1, lessor. Roy Oil Co., lessee. Location: Darmon Creek Dome. Drilled 1920-21.

Strata.	Thickness	Depth
Mississippian & Devonian Systems.		
Limestone and shale (oil show 106, salt water 108) ..	340	340
Ordovician System.		
Limestone, light blue, coarse .....	5	345
Limestone, fine, blue .....	35	380
Limestone, blue, coarse .....	20	400
Limestone, blue, very coarse .....	10	410
Limestone, blue, coarse .....	10	420
Limestone, blue, fine .....	10	430
Limestone, coarse, brown and blue.....	20	450
Limestone, blue, coarse, and black .....	20	470
Limestone, blue, coarse .....	10	480
Limestone, brown, coarse (oil show) .....	10	490
Limestone, blue, coarse .....	5	495
Limestone, blue, coarse .....	8	503
Limestone, brown, very hard .....	2	505
Total depth .....		505

NOTE—This well shows about the same relative distance between the oil sands as do the Creelsboro and Bakertown wells.

#### Log. No. 2

S. J. Royse, No. 1, lessor. Palmer Oil and Gas Co., lessee. Begun about the base of the St. Louis.

Strata.	Thickness	Depth
Mississippian & Devonian Systems.		
Soil and clay .....	40	40
Limestone, dark, shaly (fresh water) .....	35	75
Limestone, darker, black shale .....	21	96
Silurian System.		
Limestone, black, fine (sulphur water).....	19	115

Ordovician System.	Thickness	Depth
Limestone, black, coarse (salt water) .....	60	175
Limestone, light, coarse .....	35	210
Limestone, blue, very coarse .....	...	...
Incomplete depth .....		210
NOTE—Well not finished when samples of drilling supplied from which above record was made. Dec. 9, 1920.		

**Log. No. 3**

Southern Oil and Refining Co., No. 1, lessee. Location: Dirigo P. O.  
 Authority: L. Beckner.

Strata.	Thickness	Depth
Mississippian System.		
Limestone (oil show 102) .....	184	184
Shale, blue .....	100	284
Devonian System.		
Shale, black .....	40	324
Limestone (cap rock) .....	6	330
Limestone "sand" (oil) .....	15	345
Ordovician System.		
Limestone (oil show 560) .....	405	750
Total depth .....	...	750

**ALLEN COUNTY.**

Production: Oil and Gas. Producing Sands: Beaver (Mississippian);  
 Corniferous (Devonian); and Niagaran (Silurian).

**Log No. 4**

Smith, No. 1. lessor. Location: Big Trammel Creek. Completed:  
 1919.

Strata.	Thickness	Depth
Mississippian System.		
Limestone, black .....	196	196
Devonian System.		
Shale, brown .....	44	240
Limestone .....	12	252
Limestone, brown, first oil & gas .....	8	260
Limestone, white, broken up .....	28	288



Silurian and Ordovician Systems.	Thickness	Depth
Shale, soft .....	132	420
Limestone, brown, "sand" oil .....	5	425
Shale, black, lime shells .....	45	470
Shale, blue .....	25	895
Shale, green .....	15	910
Limestone, hard & gray, oil & gas .....	26	936
Limestone, white, hard and sharp .....	21	957
Shale, blue .....	5	962
Limestone, red rock .....	16	978
Total depth .....		978

NOTE—The Silurian-Ordovician contact is about midway down in the 132 feet above 420 feet in depth.

### Log No. 5

W. R. Cushenberry, No. 1, lessor. Commenced: June 4, 1919. Completed: June 14, 1919. Production: Dry. Authority: The Ohio Oil Company.

#### Strata.

Mississippian System.	Thickness	Depth
Soil, red, soft .....	4	4
Limestone, blue, hard .....	89	93
Limestone, white, hard .....	16	109
Devonian System.		
Shale, black, medium .....	34	143
Limestone, (cap rock), black, hard (salt water)..	8	151
Limestone, "sand," dark, hard .....	15	166
Silurian System.		
Limestone, dark, hard .....	22	188
Limestone, "sand," white, soft, (salt water)..	20	208
Limestone, dark, hard .....	10	218
Limestone, white, soft (fine salt water) .....	18	236
Limestone, dark, hard, coarse .....	7	243
Limestone, white, hard .....	7	250
Total depth .....		250

### Log No. 6

Deep test near Scottsville, Ky. Authority: Albert McGrain, Corydon, Indiana.

#### Strata.

Mississippian System.	Thickness	Depth
Clay .....	3	3
Limestone, white .....	155	158

Devonian System.	Thickness	Depth
Shale, black (Chattanooga) .....	40	198
Limestone, rotten .....	798	996
Limestone, (salt water) .....	4	1,000
Shale, black .....	35	1,035
Shale, green .....	5	1,040
Limestone, rotten .....	40	1,080
Shale, green .....	2	1,082
Shale, brown .....	38	1,120
Shale, (Pencil Cave) .....	3	1,123
Limestone, brown .....	77	1,200
Limestone, white .....	80	1,280
Limestone, brown .....	224	1,504
Limestone, (salt water) .....	74	1,578
Limestone, brown .....	8	1,586
Limestone, black .....	42	1,628
Limestone, dark .....	8	1,636
Limestone, brown (heavy salt water at 1,860..	154	1,790
Limestone, brown .....	82	1,872
Limestone, gray .....	8	1,880
Limestone, gray .....	30	1,910
Limestone, gray .....	5	1,915
Limestone, gray .....	15	1,930
Limestone, gray .....	10	1,940
Limestone, gray .....	5	1,945
Limestone, gray .....	5	1,950
Total depth .....		1,950

NOTE—The base of the Devonian and the top of the Silurian, the base of the Silurian and the top of the Ordovician are all contained within the 798 feet above 996 feet in depth. This record was not kept in detail.

### Log No. 7

Alfred Landers, No. 2, lessor. Commenced: June 25, 1920. Completed: July 15, 1920. Production: Dry. Authority: The Kenco Oil Company.

#### Strata.

Mississippian System.	Thickness	Depth
Clay, red .....	25	25
Limestone boulders .....	15	40
Limestone, black (water) .....	50	90
Limestone, gray .....	10	100
Flint, blue, white .....	60	160
Limestone, white .....	60	220
Shale, green (New Providence) .....	40	260

## Devonian System.

	Thickness	Depth
Shale, black (Chattanooga) .....	48	308
Limestone, (cap rock) .....	2	310
Limestone, "sand" .....	4	314
Limestone, "sand" (salt water) .....	2	316
Total depth .....		316

## Log No. 8

E. Agee, No. 2, lessor. Location: near Allen Springs, Ky. Commenced: June 12, 1920. Completed: July 2, 1920. Authority: The Kenco Oil Company.

## Strata.

Mississippian System.		Thickness	Depth
Soil, soft .....		40	40
Limestone .....		314	354
Devonian System.			
Shale, black (Chattanooga) .....		51	405
Limestone, gray, hard .....		4	409
Limestone, "sand" brown .....		4	413
Limestone, gray, soft .....		13	426
Limestone, brown, hard .....		25	451
Limestone, black, sandy, hard .....		10	461
Total depth .....			461

## Log No. 9

Robert Mitchell, No. 1, lessor. Completed: June 26, 1919. Authority: The Kenco Oil Company.

## Strata.

Mississippian System.		Thickness	Depth
Clay, red .....		29	29
Limestone, white .....		176	205
Limestone, sound .....		5	210
Limestone, blue .....		30	240
Shale, green .....		5	245
Devonian System.			
Shale, black (Chattanooga) .....		45	290
Limestone (cap rock) .....		6	296
Limestone, "sand," (oil) .....		17	313
Silurian System.			
Shale, and limestone .....		35	348
Limestone, "sand," (oil) .....		7	355
Shale .....		40	395
Limestone, "sand," (oil) .....		10	405
Ordovician System.			
Limestone .....		32	437
Total depth .....			437

**Log No. 10**

Robert Mitchell, No. 2, lessor. Location: near Oak Hill, 4th Dist.  
Completed: in 1919. Authority: The Kenco Oil Company.

## Strata.

Mississippian System.	Thickness	Depth
Clay, red .....	29	29
Limestone, gray .....	226	255
Devonian System.		
Shale, black (Chattanooga) .....	50	305
Limestone (cap rock) .....	5	310
Limestone and shale .....	127	437
Total depth .....		437

NOTE—The Devonian-Silurian-Ordovician contacts are included within the last 127 feet.

**Log No. 11**

Robert Mitchell, No. 3, lessor. Location: Oak Hill, 4th District.  
Commenced: October 4, 1919. Authority: The Kenco Oil Company.

## Strata.

Mississippian System.	Thickness	Depth
Clay .....	5	5
Limestone .....	195	200
Shale, green .....	5	205
Devonian System.		
Shale, black .....	57	262
Limestone (cap rock), gas .....	4	266
Limestone, "sand" (oil) .....	2	268
Total depth .....		268

**Log No. 12**

Robert Mitchell, No. 4, lessor. Commenced: October 6, 1919.  
Completed: October 18, 1919. Authority: The Kenco Oil Company.

## Strata.

Mississippian System.	Thickness	Depth
Clay .....	18	18
Limestone .....	42	60
Shale, hard .....	5	65
Limestone .....	130	195
Shale, green .....	5	200



## Devonian System.

	Thickness	Depth
Shale, black (Chattanooga) .....	53	253
Limestone (cap rock) .....	4	257
Limestone, "sand," .....	15	272
Total depth .....		272
Show of oil between 263 and 267 feet.		
Salt water at 263 feet.		

## Log No. 13

Robert Mitchell, No. 5, lessor. Commenced: November 6, 1919.  
 Authority: The Kenco Oil Company.

## Strata.

## Mississippian System.

	Thickness	Depth
Clay .....	5	5
Limestone (water at 70 feet) .....	65	70
Shale, hard .....	30	100
Limestone .....	118	218

## Devonian System.

Shale, black .....	52	270
Limestone (cap rock) .....	5	275
Limestone, "sand," .....	5	280
Limestone (break) .....	4	284
Limestone, "sand," .....	10	294
Total depth .....		294

## Log No. 14

Robert Mitchell, No. 13, lessor. Production: Dry; casing pulled.  
 Abandoned: May 10, 1920. Authority: The Kenco Oil Company.

## Strata.

## Mississippian System.

	Thickness	Depth
Limestone .....	240	240

## Devonian System.

Shale, black .....	69	309
Limestone (cap rock) .....	5	314
Limestone, "sand," .....	4	318
Limestone, gray .....	35	353
Limestone, "sand," (salt water) .....	4	357
Total depth .....		357

**Log No. 15**

Robert Mitchell, No. 16, lessor. Completed: in 1920. Authority: The Kenco Oil Company.

Strata.		Thickness	Depth
Mississippian System.			
Clay, red	.....	30	30
Limestone, gray	.....	112	142
Limestone, white	.....	65	207
Shale, green (New Providence)	.....	56	263

## Devonian System.

Shale, black (Chattanooga)	.....	54	317
Limestone (cap rock)	.....	1½	318½
Limestone, "sand,"	.....	4	322½
Shale, gray	.....	29½	352
Limestone	.....	4	356
Limestone, "sand" (salt water)	.....	6	362
Total depth	.....		362

NOTE—The second or deep "sand" in the Mitchell wells is probably Silurian.

**Log No. 16**

Fowler Mitchell, No. 1, lessor. Commenced: July 15, 1919. Completed: July 31, 1919. Authority: The Kenco Oil Company.

Strata.		Thickness	Depth
Mississippian System.			
Clay	.....	13	13
Limestone	.....	67	80
Shale, hard	.....	5	85
Limestone	.....	180	265

## Devonian System.

Shale	.....	43	308
Limestone (cap rock)	.....	2	310
Limestone and shale	.....	30	340

## Silurian System.

Limestone "sand"	.....	35	375
Total depth	.....		375

**Log No. 17**

Simpson Long, No. 1, lessor. Completed: July 11, 1919. Authority: The Kenco Oil Company.

## Strata.

Mississippian System.	Thickness	Depth
Clay, red .....	19	19
Limestone, gray .....	138	157
Shale and limestone .....	200	357
Devonian System.		
Shale, black (Chattanooga) .....	48	405
Limestone, (cap rock) .....	5	410
Limestone .....	15	425
Shale, hard, and limestone .....	114	539
Total depth .....		539

**Log No. 18**

Simpson Long, No. 2, lessor. Commenced: July 14, 1919. Completed: Aug. 8, 1919. Authority: The Kenco Oil Company.

## Strata.

Mississippian System.	Thickness	Depth
Clay .....	19	19
Limestone and shale, hard .....	331	350
Devonian System.		
Shale, black .....	54	404
Limestone (cap rock) .....	2	406
Limestone, "sand," .....	5	411
Limestone and shale, hard .....	39	450
Limestone, "sand," .....	10	460
Limestone and shale, hard .....	81	541
Total depth .....		541

Fresh water at 80 feet.

Salt water at 420 feet.

**Log No. 19**

N. L. Hinton, No. 1, lessor. Commenced: Feb. 25, 1919. Completed: March 28, 1919. Authority: The Kenco Oil Company.

## Strata.

Mississippian System.	Thickness	Depth
Clay .....	20	20
Limestone .....	10	30
Limestone, black .....	50	80
Limestone, blue .....	20	100
Limestone, white .....	70	170
Limestone and flint .....	20	190
Limestone, white .....	105	295
Shale, green .....	10	305
Devonian System.		
Shale, black .....	50	355
Limestone (oil sand) .....	10	365
Limestone and shale, hard .....	39	404
Total depth .....		404
Salt water at 404 feet.		

**Log No. 20.**

N. L. Hinton, No. 2, lessor. Commenced: April 9, 1919. Completed: April 25, 1919. Authority: The Kenco Oil Company.

## Strata.

Mississippian System.	Thickness	Depth
Limestone .....	214	214
Devonian System.		
Shale, black (Chattanooga) .....	38	252
Limestone (cap rock) .....	4	256
Limestone, "sand" (oil and gas from 260 to 264) .....	23	279
Shale, hard, and limestone .....	36	315
Sand .....	15	330
Limestone .....	20	350
Shale, hard .....	10	360
Limestone .....	30	390
Shale, hard .....	10	400
Limestone .....	1	401
Total depth .....		401
Fresh water at 40 feet.		
Salt water at 320 feet.		

NOTE—The base of the Devonian and the top of the Silurian is probably included within the 36 feet above 315 feet depth. These records show a difference of about 100 feet in the depths of the base of the Devonian shale in Hinton No. 1 and No. 2.



**Log No. 21**

W. H. Williams, No. 1, lessor. Commenced: July 18, 1919. Completed: July 30, 1919. Authority: The Kenco Oil Company.

## Strata.

Mississippian System.	Thickness	Depth
Clay .....	10	10
Limestone .....	10	20
Shale, hard .....	2	22
Limestone .....	59	81
Limestone, gray .....	9	90
Limestone .....	95	185

## Devonian System.

Shale, black (Chattanooga) .....	49	234
Limestone (cap rock) .....	6	240
Limestone, oil "sand" .....	14	254
Shale, hard .....	106	360
Total depth .....		360
Fresh water at 22 feet.		
Salt water at 265 feet.		

**Log No. 22**

W. H. Williams, No. 2, lessor. Commenced: August 4, 1919. Completed: August 21, 1919. Authority: The Kenco Oil Company.

## Strata.

Mississippian System.	Thickness	Depth
Clay .....	12	12
Limestone .....	158	170
Shale, hard .....	5	175
Limestone .....	80	255

## Devonian System.

Shale, black (Chattanooga) .....	50	305
Limestone (cap rock) .....	8	313
Limestone, soft .....	12	325
Limestone, sandy .....	30	355
Shale, hard .....	5	360
Limestone, sandy .....	5	365
Total depth .....		365
Fresh water at 87 feet.		
Sulphur water 170 to 175 feet.		

**Log No. 23**

J. R. Williams, No. 1, lessor. Commenced: July 18, 1919. Completed: August 30, 1919. Authority: The Kenco Oil Company.

## Strata.

Mississippian System.	Thickness	Depth
Clay .....	12	12
Limestone and shale, hard .....	28	40
Limestone, sandy .....	140	180
Limestone (break) .....	2	182
Limestone .....	38	220
Limestone (break) .....	5	225
Limestone .....	61	286

## Devonian System.

Shale, black .....	55	341
Limestone, (cap rock) .....	1	342
Limestone, "sand" (oil at 342) .....	14	356
Limestone .....	5	361
Total depth .....		361

Fresh water at 60 to 65 feet.

Sulphur water from 180 to 182, and from 220 to 225 feet.

Salt water at 361 feet.

**Log No. 24**

Allen Lease, No. 20, lessor. Commenced: June 20, 1920. Completed: July 15, 1920. Production: 6 barrels of oil in the first 24 hours. Authority: The Kenco Oil Company.

## Strata.

Mississippian System.	Thickness	Depth
Clay, red .....	20	20
Limestone, blue .....	90	110
Limestone, white .....	174	284
Shale, green .....	4	288

## Devonian System.

Shale, black (Chattanooga) .....	47	335
Limestone (cap rock), oil .....	3	338
Limestone, "sand," brown .....	10	348
Total depth .....		348

**Log No. 25**

Effie Buchannon, No. 2, lessor. Drilled: in 1919. Authority:  
The Kenco Oil Company.

Strata.

Mississippian System.	Thickness	Depth
Clay .....	24	24
Limestone .....	251	275
Devonian System.		
Shale, black (Chattanooga) .....	50	325
Limestone (cap rock) .....	3	328
Limestone, "sand" .....	20	348
Limestone .....	22	370
Total depth .....		370

**Log No. 26**

G. D. Pruitt, No. 1, lessor. Authority: The Kenco Oil Company.

Strata.

Mississippian System.	Thickness	Depth
Mud, red .....	15	15
Limestone, gray .....	390	409
Shale, green .....	6	415
Devonian System.		
Shale, black (Chattanooga) .....	45	460
Limestone, brown .....	20	480
Limestone, blue .....	40	520
Limestone, white .....	110	630
Limestone, oil "sand," .....	10	640
Shale and limestone .....	160	800
Total depth .....		800

NOTE—The base of the Devonian and the top of the Silurian is within the 40 feet above 520 in depth.

**Log No. 27**

Widow Lizzie Jewell, No. 4, lessor. Commenced: April, 1919.  
Completed: June 5, 1919. Authority: The Big Dipper Oil Company.

Strata.

Mississippian System.	Thickness	Depth
Limestone .....	175	175
Devonian System.		
Shale, black (Chattanooga) .....	60	235
Limestone, "sand," first .....	12	247
Limestone .....	42	289
Limestone, "sand," second .....	9	298
Limestone .....	11	309
Total depth .....		309

**Log No. 28**

Mrs. Lizzie Jewell, No. 5, lessor. Commenced: July 25, 1919.  
Completed: August 25, 1919. Authority: The Big Dipper Oil Company.

Strata.		
Mississippian System.		Thickness Depth
Limestone .....	195	195
Devonian System.		
Shale, black (Chattanooga) .....	48	243
Limestone .....	10	253
Limestone, "sand," first .....	9	262
Limestone .....	43	305
Limestone, "sand," second .....	9	314
Limestone .....	13	327
Total depth .....		327

**Log No. 29**

Mrs. Lizzie Jewell, No. 7, lessor. Commenced: October 23, 1919.  
Production: Dry. Authority: The Big Dipper Oil Company.

Strata.		
Mississippian System.		Thickness Depth
Limestone .....	232	232
Devonian System.		
Shale, black (Chattanooga) .....	56	288
Limestone .....	6	294
Limestone, "sand," .....	9	303
Limestone .....	27	330
Total depth .....		330

**Log No. 30**

Gainesville Pool, No. 6. Drilled in 1920. Production: 12--15  
bbls. daily. Authority: The Bowling Green Gas, Oil and Refining Co.

Strata.		
Mississippian System.		Thickness Depth
Clay, red .....	15	15
Limestone boulders .....	5	20
Limestone .....	30	50
Limestone, white .....	45	95
Limestone, gray .....	45	140
Flint, blue, soft .....	55	195
Limestone, blue .....	10	205



## Devonian System.

	Thickness	Depth
Shale, black (Chattanooga) .....	50	255
Limestone (cap rock) .....	5	260
Limestone, oil "sand," .....	15	275
Limestone .....	20	295
Total depth .....		295

## Log No. 31

Gainesville Pool, No. 8. Drilled in 1920. Well abandoned, casing pulled. Authority: The Bowling Green Gas, Oil and Refining Co.

## Strata.

## Mississippian System.

	Thickness	Depth
Soil, limestone boulders, red, soft .....	20	20
Limestone, blue, hard (little oil) .....	30	50
Limestone, gray, hard .....	10	60
Limestone, dark, soft .....	15	75
Shale .....	5	80
Limestone, white, hard .....	10	90
Shale, blue, soft (cave from 103 to 105) ....	20	110
Limestone, white, hard .....	40	150
Limestone, dark blue, hard .....	5	155
Limestone, white, hard .....	5	160
Limestone and flint .....	15	175
Limestone and flint, blue, white, hard .....	50	225
Limestone (cap rock), blue, green, soft .....	15	240

## Devonian System.

Shale, black, soft (Chattanooga) .....	50	290
Limestone (cap rock), gray, hard .....	3	293
Total depth .....		293

## Log No. 32

Gainesville Pool, No. 7. Drilled in 1920. Casing pulled, well abandoned. Authority: The Bowling Green Gas, Oil and Refining Co.

## Strata.

## Mississippian System.

	Thickness	Depth
Soil .....	3	3
Limestone, dark (salt water at 55) .....	47	50
Cotton Rock, dark blue, soft .....	10	60
Limestone, white .....	120	180
Limestone, green, soft .....	20	200
Limestone, soft .....	5	205

Devonian System.	Thickness	Depth
Shale, black (Chattanooga) .....	50	255
Limestone (cap rock), very hard .....	41½	259½
Limestone, some oil .....	31½	263
Limestone, oil "sand," .....	12	275
Limestone, dark .....	60	335
Limestone, oil "sand," light .....	15	350
Limestone, light .....	15	365
Limestone, dark .....	10	375
Limestone, white .....	20	395
Limestone, gray .....	5	400
Sandstone and limestone, light .....	2	402
Total depth .....		402

NOTE—The base of the Devonian and the top of the Silurian is within the 60 feet above 335 feet depth.

### Log No. 33

Elizabeth Jewell, No. 1, lessor. Production: 15 bbls. oil.

#### Strata.

Mississippian System.	Thickness	Depth
Limestone .....	184	184
Devonian System.		
Shale, black (Chattanooga) .....	54	238
T. 1st pay .....	2	240
B. 1st pay .....	10	250
T. 2nd pay .....	..	...
B. 2nd pay .....	..	...

### Log No. 34

Elizabeth Jewell, No. 2, lessor. Production: oil.

#### Strata.

Mississippian System.	Thickness	Depth
Limestone .....	204	204
Devonian System.		
Shale, black (Chattanooga) .....	54	258
T. 1st pay .....	10	268
B. 1st pay .....	10	278
T. 2nd pay .....	..	...
B. 2nd pay .....	..	...

**Log No. 35**

Elizabeth Jewell, No. 3, lessor. Production: oil.

## Strata.

Mississippian System.	Thickness	Depth
Limestone .....	201	201
Devonian System.		
Shale, black (Chattanooga) .....	63	264
T. 1st pay .....	3	267
B. 1st pay .....	10	277
T. 2nd pay .....	..	...
B. 2nd pay .....	..	..

**Log No. 36**

Elizabeth Jewell, No. 4, lessor. Production: oil.

## Strata.

Mississippian System.	Thickness	Depth
Limestone .....	175	175
Devonian System.		
Shale, black (Chattanooga) .....	60	235
T. 1st pay .....	2	237
B. 1st pay .....	10	247
T. 2nd pay .....	42	289
B. 2nd pay .....	9	298
Total depth .....		298

**Log No. 37**

George Jewell, No. 1, lessor. Production: oil.

## Strata.

Mississippian System.	Thickness	Depth
Limestone .....	187	187
Devonian System.		
Shale, black (Chattanooga) .....	56	243
T. 1st pay .....	35	278
B. 1st pay .....	11	289
T. 2nd pay .....	16	305
B. 2nd pay .....	3	308
Total depth .....		308

**Log No. 38**

George Jewell, No. 2, lessor. Production: Dry.

Strata.		
Mississippian System.	Thickness	Depth
Limestone .....	187	187
Devonian System.		
Shale, black (Chattanooga) .....	56	243
T. 1st pay .....	35	278
B. 1st pay .....	11	289
T. 2nd pay .....	16	305
B. 2nd pay .....	3	308
Total depth .....		308

**Log No. 39**

George Jewell, No. 3, lessor. Production: oil.

Strata.		
Mississippian System.	Thickness	Depth
Limestone .....	197	197
Devonian System.		
Shale, black (Chattanooga) .....	57	254
T. 1st pay .....	20	274
B. 1st pay .....	10	284
T. 2nd pay .....	..	...
B. 2nd pay .....	..	...

**Log No. 40**

George Jewell, No. 4, lessor. Production: oil.

Strata.		
Mississippian System.	Thickness	Depth
Limestone .....	179	179
Devonian System.		
Shale, black (Chattanooga) .....	54	233
T. 1st pay .....	37	270
B. 1st pay .....	3	273
T. 2nd pay .....	7	280
B. 2nd pay .....	10	290
Total depth .....		290



**Log No. 41**

Cook, No. 1, lessor. Location: Sledge Pool. Commenced: June 26, 1920. Completed: July 27, 1920.

## Strata.

Mississippian System.	Thickness	Depth
Limestone .....	336	336
Devonian & Silurian Systems.		
Shale, black (Chattanooga) .....	47	383
Limestone, (salt water 548-58) .....	175	558
Total depth .....		558

**Log No. 42**

O. J. McDonald, lessor. Location: Sledge Pool. Commenced: Sept. 14, 1920. Completed: Sept. 25, 1920. Production: Dry.

## Strata.

Mississippian System.	Thickness	Depth
Limestone .....	335	335
Devonian and Silurian Systems.		
Shale, black (Chattanooga) .....	50	385
Limestone .....	89 1/2	474 1/2
Total depth .....		474 1/2

**Log No. 43**

Sol Williams, lessor. Location: Sledge Pool. Production: Dry; abandoned.

## Strata.

Mississippian System.	Thickness	Depth
Limestone .....	357	357
Devonian & Silurian Systems.		
Shale, black (Chattanooga) .....	47	404
Limestone .....	201	605
Total depth .....		605

**Log No. 44**

Virgil Pruitt, No. 1, lessor. Location: Sledge Pool. Commenced: July 15, 1920. Completed: July 27, 1920.

Strata.		
Mississippian System.	Thickness	Depth
Limestone .....	331	331
Devonian System.		
Shale, black (Chattanooga) .....	51½	382½
Limestone, (oil "sand") .....	41½	387
Total depth .....		387

**Log No. 45**

Virgil Pruitt, No. 2, lessor. Location: Sledge Pool. Commenced: July 31, 1920. Completed: Aug. 21, 1920, and shot at 403 with 20 qts.

Strata.		
Mississippian System.	Thickness	Depth
Limestone .....	323	323
Shale, black (Chattanooga) .....	51	374
Limestone .....	3	377
Limestone, (1st "sand") .....	5	382
Limestone .....	16	398
Limestone, (2nd "sand") .....	5	403
Limestone .....	51½	408½
Total depth .....		408½

**Log No. 46**

Virgil Pruitt, No. 3, lessor. Location: Sledge Pool. Commenced: Aug. 7, 1920. Completed: Aug. 21, 1920.

Strata.		
Mississippian System.	Thickness	Depth
Limestone .....	373	373
Devonian System.		
Shale, black (Chattanooga) .....	50	423
Limestone .....	2	425
Limestone, (1st "sand") .....	7	432
Limestone .....	13	445
Limestone, (2nd "sand") .....	5	450
Limestone .....	2	452
Total depth .....		452



### A WARREN COUNTY GUSHER

This well is on the Briggs lease, Little Briggs pool, Kerstetter, et al. operators, flowing from 6  $\frac{1}{4}$  inch casing.

**Log No. 47**

Virgil Pruitt, No. 4, lessor. Location: Sledge Pool. Commenced: Aug. 27, 1920. Completed: Sept. 20, 1920. Production: Dry.

Strata.		
Mississippian System.		Thickness Depth
Limestone .....	333	333
Devonian & Silurian Systems.		
Shale, black (Chattanooga) .....	47	380
Limestone .....	165	545
Total depth .....		545

**Log No. 48**

Virgil Pruitt, No. 5, lessor. Location: Sledge Pool. Commenced: Aug. 27, 1920. Completed: Sept. 25, 1920, and shot at 406 feet. Production: Dry.

Strata.		
Mississippian System.		Thickness Depth
Limestone .....	359	359
Devonian System.		
Shale, black (Chattanooga) .....	47	406
Limestone "sand," .....	421½	448½
Total depth .....		448½

**Log No. 49**

Virgil Pruitt, No. 6, lessor. Location: Sledge Pool. Commenced: Sept. 29, 1920. Completed: Oct. 23, 1920, and shot 428-438 feet. Production: 2d day, 4 bbls. oil.

Strata.		
Mississippian System.		Thickness Depth
Limestone .....	3741½	3741½
Devonian System.		
Shale, black (Chattanooga) .....	50	4241½
Limestone, (oil 428—438) .....	13½	438
Total depth .....		438

**Log No. 50**

Virgil Pruitt, No. 7, lessor. Location: Sledge Pool. Commenced Oct. 2, 1920. Completed: Oct. 18, 1920. Production: produced first 24 hours, 22 bbls.; produced second 24 hours, 50 bbls.

## Strata.

Mississippian System.	Thickness	Depth
Limestone .....	361	361
Devonian System.		
Shale, black (Chattanooga) .....	48	409
Limestone, (oil 413) .....	35	444
Total depth .....		444

**Log No. 51**

Virgil Pruitt, No. 8, lessor. Location: Sledge Pool. Commenced: Oct. 21, 1921. Completed: Nov. 10, 1921. Production: Dry.

## Strata.

Mississippian System.	Thickness	Depth
Limestone .....	341	341
Devonian System.		
Shale, black (Chattanooga) .....	50	391
Limestone .....	41	432
Total depth .....		432

**Log No. 52**

Virgil Pruitt, No. 1, (Ten-Acre), lessor. Location: Sledge Pool. Drilled in 1920.

## Strata.

Mississippian System.	Thickness	Depth
Limestone .....	440	440
Devonian System.		
Shale, black (Chattanooga) .....	50	490
Limestone ("cap") .....	5	495
Limestone (oil "sand") .....	17	512
Limestone .....	9	521
Total depth .....		521



**Log No. 53**

Virgil Pruitt, No. 2, (Ten-Acre), lessor. Location: Sledge Pool.  
Drilled in 1920.

## Strata.

Mississippian System.	Thickness	Depth
Limestone .....	445	445
Devonian System.		
Shale, black (Chattanooga) .....	50	495
Limestone ("cap") .....	5	500
Limestone (oil "sand,") .....	17	517
Limestone .....	13	530
Total depth .....		530

**Log No. 54**

Bourbon Stamps, No. 2, lessor. Elevation: 730.

## Strata.

Mississippian System.	Thickness	Depth
Soil and limestone .....	324	324
Devonian System.		
Shale, black (Chattanooga) .....	45	369
Limestone ("cap") .....	5	374
Limestone "sand" .....	5	379
Limestone .....	5	384
Limestone "sand" .....	12	396
Limestone, blue .....	20	416
Silurian System.		
Limestone "sand," .....	20	436
Total depth .....		436

**Log No. 55**

W. M. Newman, No. 1, lessor. Location: near Bourbon Stamps  
lease. Production: oil show only.

## Strata.

Mississippian System.	Thickness	Depth
Soil and limestone .....	311	311
Devonian System.		
Shale, black (Chattanooga) .....	41	352
Limestone, blue .....	4	356
Limestone (cap) .....	5	361
Limestone "sand," .....	18	379
Total depth .....		379

**Log No. 56**

A. J. Wheat, No. 1, lessor. Location: adjoins W. M. Newman, No. 1. Production: Dry.

Record similar and sand in same place as in W. M. Newman, No. 1.

**Log No. 57**

Gerard, No. 1, lessor. Location: near Bourbon Stamps lease. Completed: July 31, 1907. Production: Dry.

Strata.

Mississippian System.	Thickness	Depth
Limestone .....	480	480
Devonian & Silurian Systems.		
Shale, black (Chattanooga) .....	45	525
Limestone .....	15	540
Limestone .....	270	810
Total depth .....		810

**Log No. 58**

Gerard, No. 2, lessor. Location: near Bourbon Stamps lease. Commenced: Dec. 3, 1907. Completed: Dec. 20, 1907. Production: gas at 310 and 440.

Strata.

Mississippian System.	Thickness	Depth
Limestone .....	515	515
Devonian System.		
Shale, black (Chattanooga) .....	45	560
Limestone .....	35	595
Total depth .....		595

**Log No. 59****WHEAT POOL.**

A. W. Stamp, No. 1, lessor. Production: Dry; abandoned Aug. 7, 1919.

Strata.

Mississippian and Devonian Systems.	Thickness	Depth
Soil .....	6	6
Limestone and shale .....	215	221
Total depth .....		221

## Log No. 60

No. 2.

Commenced: March 29, 1919. Contractor: E. A. Dyer.

Strata.

Mississippian System.	Thickness	Depth
Limestone .....	55	55
Shale, green (New Providence) .....	2	57
Devonian System.		
Shale, black (Chattanooga) .....	48	105
Limestone (cap rock) .....	3	108
Limestone "sand," (oil) .....	18	126
Limestone .....	21½	128½
Total depth .....		128½

## Log No. 61

No. 3.

Strata.

Mississippian System.	Thickness	Depth
Soil .....	6	6
Limestone .....	50	56
Devonian System.		
Shale, black (Chattanooga) .....	63	119
Limestone, (cap rock) .....	1	120
Limestone "sand," (oil) .....	14	134
Limestone .....	1	135
Total depth .....		135

## Log No. 62

No. 4.

Location: at power house.

Strata.

Mississippian System.	Thickness	Depth
Soil .....	10	10
Limestone, gray .....	50	60
Devonian System.		
Shale, black (Chattanooga) .....	48½	108½
Limestone (cap rock) .....	7½	116
Limestone "sand," (oil) .....	16	132
Limestone, gray .....	1	133
Total depth .....		133
Well shot April 1, 1920, 10 qts.		

**Log No. 63**

No. 5.

Location: On hill above powerhouse. Casing Record: 110 feet of casing.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	8	8
Limestone .....	98	106
Devonian System.		
Shale, black (Chattanooga) .....	48	154
Limestone (cap rock) .....	7	161
Limestone "sand," (oil) .....	27	188
Limestone, gray .....	2	190
Total depth .....		190

**Log No. 64**

No. 6.

Location: Near Hinton lease.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	6	6
Limestone, gray .....	98	104
Devonian System.		
Shale, black (Chattanooga) .....	55	159
Limestone "sand," (oil) .....	17	176
Limestone .....	2	178
Total depth .....		178

**Log No. 65**

No. 7.

Location: On hill towards house. Production: Strong flow of gas and oil.

## Strata.

Mississippian System.	Thickness	Depth
Limestone, mixed .....	138	138
Limestone, white .....	10	148
Flint, blue, (New Providence) .....	12	160
Shale, green, (New Providence) .....	3	163
Devonian System.		
Shale, black (Chattanooga) .....	46	209
Limestone (cap rock) .....	4	213
Limestone "sand," (oil) .....	29	242
Limestone .....	1	243
Total depth .....		243

**Log No. 66**

A. Watkins, No. 1, lessor. Location: Across branch from Stamp lease.

Strata.		Thickness	Depth
Mississippian System.			
Limestone, mixed	.....	45	45
Devonian System.			
Shale, black (Chattanooga)	.....	51	96
Limestone (cap rock)	.....	8	104
Limestone, "sand," (oil)	.....	15	119
Limestone, gray	.....	2	121
Total depth	.....		121

**Log No. 67**

Starks Well, No. 1, lessor.

Strata.		Thickness	Depth
Mississippian System.			
Soil and subsoil	.....	35	35
Limestone and flint	.....	115	150
Devonian System.			
Shale, black (Chattanooga)	.....	48	198
Limestone (cap rock)	.....	7	205
Limestone, gray, oil, "sand"	.....	10	215
Silurian System.			
Limestone, dark, rotten	.....	30	245
Limestone, gray and sand	.....	15	260
Limestone "sand," (salt water)	.....	5	265
Limestone "sand," (oil)	.....	3	268
Limestone, gray	.....	2	270
Total depth	.....		270

**Log No. 68**

Price, No. 1, lessor. Location: Near mouth of Johns Creek. Drilled: in October, 1920. Contractors: Brown Bros. Elevation: 646 A. T.

Strata.		Thickness	Depth
Mississippian System.			
Soil and limestone	.....	242	242
Devonian System.			
Shale, black (Chattanooga)	.....	52	294
Limestone, light, soft, brown	.....	4	298
Limestone, harder, browner	.....	4	302
Limestone, harder, lighter	.....	8	310
Limestone, lighter, softer	.....	4	314



Silurian System.		Thickness	Depth
Limestone, blue, harder .....	4	318	
Shale, blue, very soft .....	45	363	
Shale, blue, harder .....	4	367	
Limestone, brown, harder, crys. ....	4	371	
Limestone, blue, very soft, shaly .....	20	391	
Incomplete depth .....		391	

**Log No. 69**

Payne, No. 1, lessor. Location: Between Harmony School and Mt. Aerial. Drilled in 1920. Operator: Stuart St. Clair, geologist. Elevation: 609 A. T. Authority: Stuart St. Clair, geologist.

## Strata.

Mississippian System.		Thickness	Depth
Soil and limestone shale .....	232	232	
Devonian System.			
Shale, black (Chattanooga) .....	52	284	
Limestone .....	93	377	
Total depth .....		377	

NOTE—Gas was found above the shale, which caught fire from a careless visitor and burned the rig. No other show. The lower part of the last 93 feet of limestone is Silurian.

**Log No. 70**

Bourbon Stamps, No. 1, lessor. Location: Near Harmony School. Production: Flowed oil. Elevation: 744 A. T.

## Strata.

Mississippian System.		Thickness	Depth
Soil and limestone .....	322	322	
Devonian System.			
Shale, black (Chattanooga) .....	45	367	
Limestone (cap rock) .....	5	372	
Limestone "sand" .....	12	384	
Silurian System.			
Limestone, blue .....	35	419	
Limestone "sand" .....	20	439	
Total depth .....		439	

**Log No. 71**

Price Turner, lessor. Authority: Mr. De Caigny and J. H. McClurkin. Well No. 1. Elevation: 851.6 A. T.

## Strata.

	Thickness	Depth
Mississippian System.		
Soil .....	32	32
Limestone, (water) .....	60	92
Limestone .....	180	272
Devonian System.		
Shale, black (Chattanooga) .....	44	316
Limestone (cap) .....	28	344
Limestone "sand," (oil) .....	22	366
Limestone .....	9	375
Total depth .....		375

**Log No. 72**

Well No. 2. Elevation: 848.2 A. T.

## Strata.

	Thickness	Depth
Mississippian System.		
Soil .....	30	30
Limestone, (water) .....	62	92
Limestone .....	176	268
Devonian System.		
Shale, black (Chattanooga) .....	48	316
Limestone (cap) .....	32	348
Limestone "sand," (oil) .....	6	354
Limestone .....	14	368
Total depth .....		368

**Log No. 73**

Well No. 3. Elevation: 841.9 A. T.

## Strata.

	Thickness	Depth
Mississippian System.		
Soil .....	19	19
Limestone, (water) .....	61	80
Limestone .....	160	240
Devonian System.		
Shale, black (Chattanooga) .....	48	288
Limestone (cap) .....	44	332
Limestone "sand," (oil) .....	18	350
Limestone .....	9	359
Total depth .....		359

## Log No. 74

Well No. 4. Elevation: 809.4 A. T.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	12	12
Limestone, (little water) .....	64	76
Limestone .....	142	218
Devonian System.		
Shale, black (Chattanooga) .....	43	261
Limestone (cap) .....	31	292
Limestone "sand," (oil) .....	16	308
Limestone .....	57	365
Total depth .....		365

## Log No. 75

Fed Shields, No. 1, lessor. Seaboard Oil Co., lessee. Completed and abandoned Feb. 19, 1921. Authority: Seaboard Oil Co.

## Strata.

Mississippian System.	Thickness	Depth
Soil and subsoils .....	10	10
Limestone, gray .....	40	50
Limestone, gray, and flint .....	120	170
Devonian System.		
Shale, black (Chattanooga) .....	45	215
Limestone (cap rock) .....	10	225
Limestone, blue .....	50	275
Shale or sugar lime or blue "gumbo" .....	100	375
Shale, harder, blue .....	25	400
Limestone (salt water, heavy flow), white sands .....	10	410
Total depth .....		410

NOTE—From 50 to 170 feet all showed white flint, more or less gray and grayish lime mixed with green. Set casing 147, all pulled and well plugged with two plugs. Left 10 ft.  $8\frac{1}{4}$  in. casing in hole; could not pull it. The base of the Devonian and the top of the Silurian occurs midway in the 50 feet of limestone above 275 feet.

## BARREN COUNTY.

**Production:** Oil and Gas. **Producing Sands:** Oil City (Amber Oil) (Mississippian); Corniferous (Devonian); "Second Sand" (Silurian); "Deep" (Ordovician).

### Log No. 76

Lewis No. 1, lessor. Location: at Wathens Mills, 1 mile east of Haywood, near Oskamp. Production: 4 bbls. oil.

#### Strata.

Mississippian System.	Thickness	Depth
Limestone .....	78	78
Devonian System.		
Shale, black (Chattanooga) .....	49	127
Limestone (oil and gas, shallow) .....	21	148
Limestone (oil) .....	5	153

#### Silurian System.

Limestone .....	264	417
Total depth .....		417

NOTE—The Silurian-Ordovician contact is included within the last 264 feet of the record.

### Log No. 77

Lewis No. 2, lessor. Location at Wathens Mills, 1 mile east of Haywood, near Oskamp. Production: 4 bbls oil.

#### Strata.

Mississippian System.	Thickness	Depth
Limestone .....	105	105
Devonian System.		
Shale, black (Chattanooga) .....	45	150
Limestone (cap rock) .....	8	158
Limestone (oil) .....	7	165
Total depth .....		165

**Log No. 78**

Peden, No. 1, lessor. Location: one-half mile south of Temple Hill, on the crest of the Temple Hill Anticline. Initial Production: estimated at 1,000,000 cubic feet, rock pressure of 325 lbs. gauged.

## Strata.

Mississippian System.	Thickness	Depth
Limestone .....	54	54
Devonian System.		
Shale, black (Chattanooga) .....	35	89
Limestone, blue .....	271	360
Limestone (fissure gas, 366) .....	6	366
Limestone, gray, sandy .....	34	400
Limestone, blue (gas) .....	143	543
Total depth .....		543

NOTE—This was the first gas well drilled in at Temple Hill. The base of the Devonian top of the Silurian, base of the Silurian and top of the Ordovician are all included within the 271 feet of "blue limestone" above 360 feet in depth. This record lacks detail. The well finished in the Ordovician.

**Log No. 79**

Button, No. 1, lessor. Location: Junction of Skeggs and Beaver Creeks.

## Strata.

Mississippian System.	Thickness	Depth
Limestone .....	102	102
Devonian System.		
Shale, black (Chattanooga) .....	43	145
Limestone .....	12	157
Limestone, hard .....	1	158
Limestone (oil "sand") .....	4	162
Limestone .....	72	234
Limestone (oil "sand") .....	7	241
Limestone, hard .....	18	259
Total depth .....		259

NOTE—The Devonian-Silurian contact is within the 72 feet above 234 feet in depth.

**Log No. 80**

Button, No. 2, lessor. Location: Junction of Skeggs and Beaver Creeks. Production: Flush. 15 bbls. oil.

## Strata.

Mississippian System.	Thickness	Depth
Limestone .....	152	152
Devonian System.		
Shale, black (Chattanooga) .....	43	195
Limestone .....	74	269
Limestone .....	5	274
Total depth .....		274

Casing head is 37', 8" higher than button No. 1.

NOTE—The Devonian-Silurian contact is within the 74 feet above 269 feet in depth.

**Log No. 81**

Robert Wayfield, No. 1, lessor. Location: Junction of Upper Bowling Green and Stovall Roads. Commenced: May 7, 1919.

## Strata.

Mississippian System.	Thickness	Depth
Limestone .....	250	250
Limestone .....	147	397
Limestone .....	8	405
Devonian System.		
Shale, black (Chattanooga) .....	65	470
Limestone (cap rock) .....	4	474
Limestone (gassy) .....	13	487
Limestone .....	113	600
Limestone .....	145	745
Fire clay .....	10	755
Limestone, gray and yellow .....	8	763
Shale .....	4	767
Total depth .....		767

NOTE—The Devonian-Silurian contact is within the 113 feet above 600 feet in depth. The Silurian-Ordovician contact is within the 145 feet above 745 feet in depth.



**Log No. 82**

Woodson, No. 1, lessor. Location: on road north of Lucas, between Skeggs and Beaver Creeks. Production: oil filled hole 242 feet.

**Strata.**

Mississippian System.	Thickness	Depth
Limestone .....	245	245
<b>Devonian System.</b>		
Shale, black (Chattanooga) .....	45	290
Limestone .....	62	352
Limestone, oil "sand" .....	13	365
Total depth .....		365

NOTE—The oil in this well is found in the Silurian. The Devonian-Silurian contact occurs in the 62 feet above 352 feet in depth.

**Log No. 83**

John Barriek, No. 1, lessor. Location: 3 miles southwest of Beck-ton Station. Production: 20 quarts. Abandoned.

**Strata.**

Mississippian System.	Thickness	Depth
Limestone .....	130	130
Limestone, gassy .....	5	135
Limestone .....	108	243
Limestone .....	102	345
<b>Devonian System.</b>		
Shale, black (Chattanooga) .....	65	410
Limestone (cap rock) .....	10	420
Limestone (oil "sand") .....	8	428
<b>Silurian System.</b>		
Limestone (oil show 522) .....	94	522
Limestone .....	34	556
Shale (oil) .....	8	564
Limestone .....	12	576
Total depth .....		576

**Log No. 84**

Diek Smith, No. 1, lessor. Location: Dry Fork, southern Barren.  
Well abandoned.

## Strata.

Mississippian System.	Thickness	Depth
Limestone .....	106	106
Devonian System.		
Shale, black (Chattanooga) .....	38	144
Limestone (gassy) .....	167	311
Limestone .....	341	652
Total depth .....		652

NOTE—The Devonian-Silurian contact occurs within and toward the top of the 167 feet of limestone above 311 feet in depth. The Silurian-Ordovician contact occurs toward the top of the last 341 feet of the record.

**Log No. 85**

J. C. Cole, No. 1, lessor. Authority: The Swiss Oil Corporation.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	20	20
Limestone, brown, hard .....	70	90
Limestone, white, hard .....	61	151
Limestone, gray, hard .....	40	191
Devonian System.		
Shale, black, soft (Chattanooga) .....	52	243
Limestone, (cap rock), hard .....	4	247
Limestone, "sand" (first), hard .....	6	253
Shale .....	30	283
Limestone, (cap rock) .....	6	289
Limestone, "sand" (second) .....	20	309
Shale, blue .....	28	337
Limestone, "sand" (third) .....	3½	340½
Limestone and salt water .....	41	381½
Total depth .....		381½

NOTE—The Devonian-Silurian contact occurs within and toward the base of the 30 feet of "shale" above 283 feet in depth.

## Log No. 86

J. C. Cole, No. 4, lessor. Commenced: January 28, 1920. Completed: February 10, 1920. Production: Dry. Authority: The Swiss Oil Corporation.

## Strata.

Mississippian System.	Thickness	Depth
Clay, red, soft .....	15	15
Limestone, gray, hard .....	4	19
Clay, red .....	2	21
Limestone, gray, hard .....	2	23
Clay and limestone .....	4	27
Limestone, black, soft (water at 28) .....	37	64
Flint, white, hard .....	8	72
Limestone, black soft .....	30	102
Shale, hard, black, soft .....	5	107
Limestone, white, hard .....	12	119
Limestone, black, soft .....	110	229
Devonian System.		
Shale, black, soft .....	41	270
Shale, brown, hard .....	10	280
Limestone (cap rock) .....	2	282
Salt sand (heavy water) .....	3	285
Total depth .....		285

## Log No. 87

H. M. Emmett, No. 1, lessor. Location: 1 mile west of Freedom P. O. Drilled by the Wabash Oil Co., May 31, 1920. Production: 1 bbl. amber oil.

## Strata.

Mississippian System.	Thickness	Depth
Limestone .....	135	135
Devonian System.		
Shale, black (Chattanooga) .....	30	165
Limestone .....	42	207
Limestone (pay oil "sand") .....	3	210
Limestone .....	10	220
Total depth .....		220

NOTE—The oil horizon as given in this record is undoubtedly in the Niagaran (Silurian) limestone. The Devonian-Silurian contact is not recognized, but is within the 42 feet of limestone recorded just below the black shale. An amber oil in commercial quantities from this horizon is very unusual in Kentucky.

**Log No. 88**

Stephen Kinslow, No. 2, lessor. William Oskamp, lessee. Location: 4 miles south of Glasgow, on Boyd's Creek. Drilled in the summer of 1918. Production: in August, 1920, one barrel. Authority: Gordon Kinslow.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	4	4
Limestone, variable .....	139	143
Devonian System.		
Shale, black (Chattanooga) .....	37	180
Limestone, brown .....	27½	207½
Limestone, "sand" (oil) .....	8	215½
Limestone .....	14½	230
Limestone, "sand" (oil) .....	4	234
Total depth .....		234

**Log No. 89**

Stephen Kinslow, No. 4, lessor. William Oskamp, lessee. Location: 4 miles south of Glasgow, on Boyd's Creek. Drilled in the summer of 1919. Production: summer of 1920, five barrels. Authority: Gordon Kinslow.

## Strata.

Mississippian System.	Thickness	Depth
Limestone, variable .....	161	161
Devonian System.		
Shale, black (Chattanooga) .....	42	203
Limestone .....	27	230
Sand (oil) .....	2	232
Total depth .....		232

**Log No. 90**

William Oskamp, No. 3, lessor and lessee. Location: 4 miles south of Glasgow, on Boyd's Creek. Drilled in August, 1918. Production: August, 1920—3—4 barrels. Authority: Gordon Kinslow.

## Strata.

Mississippian System.	Thickness	Depth
Limestone .....	97	97
Devonian System.		
Shale, black (Chattanooga) .....	40	137
Limestone, brown .....	30	167
Limestone, "sand" (oil) .....	7	174
Limestone .....	20	194
Total depth .....		194

**Log No. 91**

William Oskamp, No. 4, lessor and lessee. Location: 4 miles south of Glasgow, on Boyd's Creek. Drilled in the summer of 1918. Production: August, 1920, 2 barrels a day. Authority: Gordon Kinslow.

## Strata.

Mississippian System.	Thickness	Depth
Limestone, variable .....	107	107
Devonian System.		
Shale, black (Chattanooga) .....	40	147
Limestone, brown .....	25	172
Limestone, "sand" (oil) .....	2	174
Total depth .....		174

**Log No. 92**

Wilson, No. 1, lessor. Location: 3 miles southeast of Cave City. Authority: E. T. Merry.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	10	10
Clay .....	45	55
Shale, calcareous .....	60	115
Limestone .....	35	150
Limestone, (small gas) .....	50	200
Limestone .....	365	565
Devonian System.		
Shale, black (Chattanooga) .....	55	620
Limestone .....	30	650
Silurian System.		
Limestone, (oil show) .....	40	690
Limestone, sandy .....	35	725
Limestone, hard .....	75	800
Total depth .....		800

Casing,  $8\frac{1}{4}$  to 75 feet.

"  $6\frac{1}{4}$  to 275 feet.

## Log No. 93

Richardson, No. 1, lessor. Elem Oil & Gas Co., lessee. Location: just north of Glasgow, Ky. Commenced:———— Completed: Sept. 20, 1921. Production: Oil, 5 bbls., gas small. Gravity of oil produced 44.7. Authority: W. H. Link.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	36	36
Limestone, brown .....	10	46
Limestone, gray, soft .....	12	58
Limestone, dark gray .....	20	78
Limestone, brown .....	10	88
Limestone, light brown .....	15	103
Limestone, light gray .....	10	113
Limestone, gray, soft .....	7	120
Limestone, brown .....	5	125
Shale, gray .....	5	130
Limestone, gray .....	5	135
Limestone, white .....	10	145
Shale, gray .....	10	155
Limestone, gray .....	45	200
Limestone, light gray .....	5	205
Limestone, dark gray .....	5	210
Limestone, brown .....	8	218
Shale, gray .....	25	243
Shale, dark .....	20	263
Limestone, gray .....	5	268
Limestone, blue .....	15	283
Limestone, gray .....	15	298
Limestone, dark gray .....	10	308
Limestone, gray .....	12	320
Shale, gray .....	15	335
Limestone, gray .....	10	345
Shale, gray .....	10	355
Shale, gray .....	5	360
Limestone, gray .....	12	372
Devonian System.		
Shale, (Chattanooga), (cased below shale) .....	49	421
Cap rock, white .....	7	428
Limestone, gray .....	20	448
Silurian System.		
Limestone, brown .....	57	505
Sand, (oil show) .....	18	523



Silurian System.		Thickness	Depth
Limestone, blue .....		10	533
Gas sand, brown, (small gas) .....		20	553
Ordovician System.			
Limestone, blue .....		34	587
Cap rock, salt and pepper .....		7	594
Oil sand, brown (showing) .....		20	614
Limestone, dark .....		10	624
Limestone, blue .....		66	690
Cap rock, flint .....		6	696
Oil & gas sand, white, (small oil & gas) .....		9	705
Limestone, blue .....		44	749
Flint, blue .....		10	759
Limestone, blue .....		80	839
Flint, blue .....		20	859
Limestone, light blue .....		116	975
Limestone, dark blue .....		38	1,013
Limestone, dark gray .....		79	1,092
Limestone, blue .....		5	1,097
Cap rock (Trenton) .....		10	1,107
Sand (Trenton), (commercial oil) .....		15	1,122
Rock (Trenton) .....		89	1,211
Total depth .....			1,211

## BATH COUNTY.

Production: Oil. Producing Sand, Ragland (Corniferous) (Devonian),  
 "Olympia" (Niagaran-Silurian).

## Log No. 94

Ewing Heirs, No. 9, lessors. Location: Licking Union District.  
 Completed: April 18, 1903. Authority: The New Domain Oil & Gas  
 Company.

## Strata.

Mississippian System.		Thickness	Depth
Gravel, soft .....		18	18
Limestone, hard .....		158	176
Shale, hard, soft .....		274	450
Devonian System.			
Shale, black, soft (Chattanooga) .....		216	666
Limestone, "sand," hard (oil at 670) .....		24	690
Total depth .....			690

**Log No. 95**

Ewing Heirs, No. 10, lessors. Location: Licking Union District.  
Completed: May 6, 1903. Authority: The New Domain Oil & Gas Company.

Strata.		
Mississippian System.	Thickness	Depth
Gravel .....	22	22
Limestone .....	153	175
Shale, white, hard .....	230	405
Sand .....	30	435
Devonian System.		
Shale, black (Chattanooga) .....	216	651
Limestone, "sand," (oil at 655) .....	29	680
Total depth .....		680

**Log No. 96**

Ewing Heirs, No. 11, lessors. Location: Licking Union District.  
Completed: May 28, 1903. Authority: The New Domain Oil & Gas Company.

Strata.		
Mississippian System.	Thickness	Depth
Gravel .....	13	13
Limestone .....	225	238
Shale, hard .....	273	511
Devonian System.		
Shale, black (Chattanooga) .....	215	726
Limestone, "sand" (oil pay at 729) .....	21	747
Total depth .....		747

**Log No. 97**

Ewing Heirs, No. 12, lessors. Location: Licking Union District.  
Completed: August 1, 1903. Authority: The New Domain Oil & Gas Company.

Strata.		
Mississippian System.	Thickness	Depth
Limestone .....	50	50
Shale, white, hard .....	561	611
Devonian System.		
Shale, black (Chattanooga) .....	205	816
Shale (fire clay) .....	8	824
Shale, brown .....	15	839
Limestone, "sand" (oil at 842) .....	31	870
Total depth .....		870

**Log No. 98**

Ewing Heirs, No. 13, lessors. Location: Licking Union District. Completed: August 14, 1903. Authority: The New Domain Oil & Gas Company.

## Strata.

Mississippian System.	Thickness	Depth
Limestone .....	50	50
Shale, blue .....	555	605
Devonian System.		
Shale, black (Chattanooga) .....	205	810
Shale (fire clay), white .....	5	815
Shale, brown .....	15	830
Limestone, "sand" (oil at 838) .....	25	855
Total depth .....		855

**BOYD COUNTY.**

Production: Oil and Gas. Producing Sands: Pottsville (Pennsylvanian); Big Injun, and Berea (Mississippian); "Tunnel Sand" (Devonian).

**Log No. 99**

W. I. Ross, No. 1, lessor. Good Losers Oil & Gas Co., (oil well No. 3) lessee. Location: near Bolts Fork, in Boyd County. Commenced: Oct. 1, 1920. Completed: Dec. 14, 1920. Initial production: 25 bbls. oil. Authority: C. E. Bales.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil and shale .....	40	40
Sandstone .....	30	70
Shale and shells .....	60	130
Coal .....	3	133
Limestone (shells) .....	7	140
Shale (Red Rock) .....	12	152
Shale, dark .....	100	252
Sandstone .....	75	327
Shale, light .....	40	367
Limestone, hard .....	13	380
Shale, dark .....	10	390
Sandstone, gray (water at 400) .....	40	430
Shale and shells .....	120	550
Limestone, gray .....	25	575
Shale, dark .....	125	700

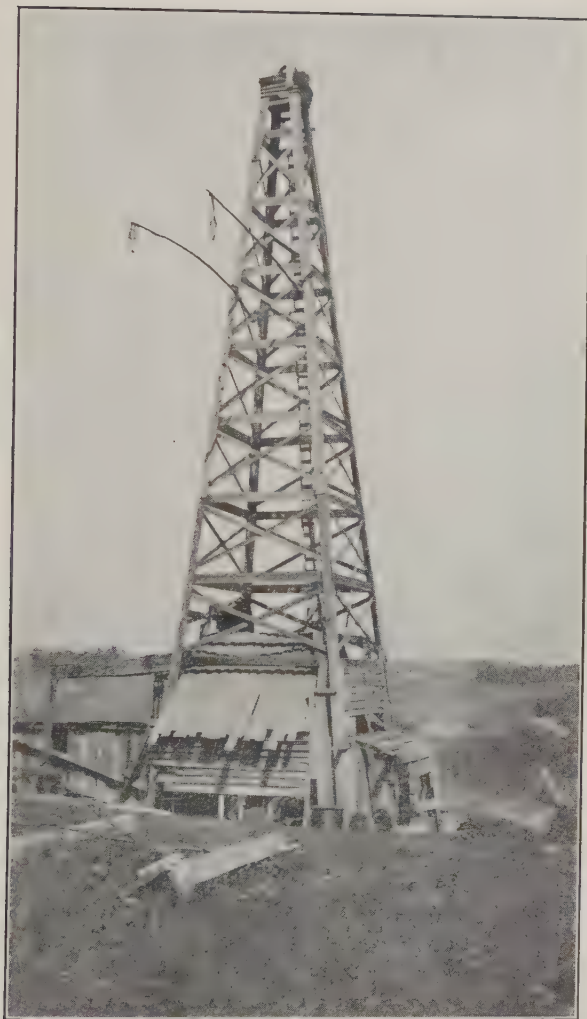
Pennsylvanian System.	Thickness	Depth
Sandstone, gray .....	30	730
Shale and shells .....	90	820
"Salt sand" .....	70	890
Shale, dark .....	25	915
Sandstone, white .....	85	1,000
Mississippian System.		
Limestone, gray .....	40	1,040
Shale, dark .....	40	1,080
Limestone, hard .....	105	1,185
Shale, dark .....	35	1,220
Limestone, gritty .....	60	1,280
Sandstone, gray .....	40	1,320
Limestone, hard .....	10	1,330
Waverly shale .....	250	1,580
Shale and shells .....	150	1,730
Shale, brown .....	27	1,757
Sandstone ("Berea Grit"), (oil at 20 ft. in sandstone, used 20 qts. nitro glycerine)	35	1,792
Shale, dark .....	32	1,824
Sandstone ("Berea Grit"), (all carried oil, used 20 qts. nitro glycerine) .....	6	1,830
Shale .....	36	1,866
Total depth .....		1,866

### Log No. 100.

John Murphy, No. 1, lessor. Murphy Oil & Gas Co. (gas well No. 4), lessee. Location: east side of A. C. & I. Ry. Co. tunnel, just west of Ashland. Commenced: September 14, 1912. Completed: November 15, 1912. Initial production: 250,000 cu. ft. gas. Authority: C. E. Bales.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	11	11
Sandstone .....	70	81
Fire clay .....	9	90
Shale .....	50	140
Sandstone .....	10	150
Shale (fresh water set 8¼" casing at 180) ..	290	440
Salt sand .....	20	460
Shale, blue .....	30	490
Limestone, sandy .....	18	508
Salt sand (some gas) .....	60	568



#### DEEPEST WELL IN NORTHEASTERN KENTUCKY

This well drilled on the Martha Stewart farm is known as the Barrick Oil and Gas Co. No. 8. It is located about two miles East of Denton in Carter County on the A. C. & I. R. R. The total depth was 3920 feet. The drilling was started March 29, 1920, and was finished in the Ordovician limestone on Jan. 8, 1921.

Mississippian System.	Thickness	Depth
Limestone .....	37	605
Limestone, sandy .....	30	635
Shale, white .....	15	650
Sandstone .....	90	740
Limestone, sandy (salt water) .....	92	832
Shale, soft and muddy .....	8	840
Shale (set 65/8" casing at 855) .....	25	865
Sandstone .....	45	910
Shale .....	347	1,257
Shale, "coffee" .....	15	1,272
Limestone .....	5	1,277
Sand ("Berea"), (show of oil) .....	15	1,292
Shale and sand .....	23	1,315
Sandstone, gray (gas) .....	33	1,348
Shale, blue .....	35	1,383
Shale (Red Rock) .....	11	1,394
Shale, blue .....	15	1,409
Shale, blue .....	176	1,585
Devonian System.		
Shale, black (Ohio) .....	115	1,700
Sandstone (fossil shells, gas) .....	5	1,705
Shale, black (Ohio) .....	200	1,905
Sandstone (fossil shells, gas) .....	5	1,910
Shale, black (Ohio) .....	20	1,930
Total depth .....		1,930

This well is still a good producer, the gas being pumped into the pipe line, serving Ashland, Boyd County, Kentucky.

#### Log No. 101.

Belle Ross, No. 1, lessor. Good Losers Oil & Gas Co., (oil well No. 2) lessee. Location: near Bolts Fork, in Boyd County, just north of Lawrance County line, and about 4½ miles east of Denton, Carter County. Commenced: June 25, 1920. Completed: Aug. 20, 1920, Initial production: 15 bbls. oil. Authority: C. E. Bales.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	20	20
Shale, black .....	65	85
Sandstone and limestone .....	170	255
Shale, white and brown .....	125	380
Sandstone (show of gas) .....	30	410



## Pennsylvania System.

	Thickness	Depth
Sandstone and shale .....	170	580
Shale, black .....	200	780
Sandstone, white .....	175	955
Shale, black .....	15	970

## Mississippian System.

Limestone (Big Lime) .....	105	1,075
Shale, white .....	108	1,183
Sandstone, white (salt water) .....	30	1,213
Waverly shale .....	424	1,637
Shale, black .....	20	1,657
Sandstone ("Berea Grit"), (oil) .....	44	1,701
Shale, black .....	8	1,709
Sandstone, dark .....	4	1,713
Shale, black .....	5	1,718
Sandstone ("Berea Grit"), (oil) .....	26	1,744
Shale, black .....	7	1,751
Total depth .....		1,751

## Log No. 102.

Clara Williams, No. 1, lessor. Location: Lockwood, Ky. Authority:  
Associated Producers Company.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Shale and shell .....	400	400
Sandstone (cow run) .....	50	450
Sandstone (cow run) (second) .....	50	500
Sandstone (salt sand) .....	610	1,110
Shale .....	10	1,120

## Mississippian System.

Sandstone (Maxon) .....	50	1,170
Limestone (Big Lime) .....	122	1,292
Shale, red and blue .....	40	1,332
Sandstone (Big Injun), (3 bbls. water in 24 hrs. 50 ft. in Big Injun sand) .....	200	1,532
Shale and shells .....	326	1,858
Shale, black .....	30	1,888
Sandstone (Berea sand) (top of Berea 1888)..	42	1,930
Total depth .....		1,930

**Log No. 103**

Drilled by the Huntington Gas & Development Co. Location:  
on Big Sandy River, 13 miles north of Catlettsburg, Boyd County, Ken-  
tucky.

Strata.		Thickness	Depth
Pennsylvanian System.			
Soil .....		46	46
Sandstone .....		39	85
Shale .....		10	95
Sand .....		10	105
Shale .....		20	125
Sand .....		65	190
Shale .....		10	200
Sand .....		20	220
Shale .....		20	240
Sand .....		60	300
Shale .....		227	527
Sand .....		15	542
Shale .....		274	816
Salt sand .....		224	1,040
Coal .....		2	1,042
Shale .....		18	1,060
Mississippian System.			
Sandstone (Maxon) .....		22	1,082
Shale .....		2	1,084
Limestone (Big Lime) .....		111	1,195
Shale .....		10	1,205
Sandstone (Big Injun) .....		175	1,380
Shale .....		21	1,401
Shale and shells .....		417	1,818
Sandstone (Berea) .....		44	1,862
Shale and shells .....		40	1,902
Devonian System.			
Shale (break) .....		658	2,560
Shale (Chattanooga) .....		186	2,746
Limestone and sand (Ragland) .....		34	2,780
Silurian System.			
Limestone .....		625	3,405
Shale .....		25	3,430
Limestone (Red Rock) .....		75	3,505
Shale, black .....		95	3,600
Limestone (shell) .....		5	3,605
Limestone (Red Rock) .....		25	3,630

Silurian System.		Thickness	Depth
Shale, black .....		15	3,645
Limestone (shell), hard .....		4	3,649
Shale and sand (shell) .....		41	3,690
Shale .....		5	3,695
Limestone (Red Rock) .....		5	3,700
Shale, black .....		15	3,715
Limestone .....		20	3,735
Sand, broken .....		15	3,750
Shale, black .....		37	3,787
Total depth .....			3,787

NOTE—The base of the Silurian and the top of the Ordovician occurs near the top of the 625 feet of limestone above 3,405 feet in depth.

## BRACKEN COUNTY.

Production: Small Oil and Gas. Producing Sands: Probably Trenton (Ordovician).

### Log No. 104

Well A. Lessor and lessee unknown. Location: On the bank of the North Fork of the Licking River, near the Bracken-Robertson County Line. Drilling completed: 1903.

#### Strata.

Ordovician System.		Thickness	Depth
Soil .....		15	15
Limestone, (oil show 85) .....		70	85
Limestone (oil "sand") .....		40	125
Limestone, gray .....		275	400
Total depth .....			400

### Log No. 105

Well B. Lessor and lessee unknown. Location: About 800 feet east of Well A. Drilling completed: 1903. Production: Oil, flowed for months in the creek.

#### Strata.

Ordovician System.		Thickness	Depth
Soil .....		15	15
Limestone, (oil show 70) .....		55	70
Limestone, (oil "sand") .....		40	110
Limestone, gray .....		290	400
Total depth .....			400

**Log No. 106**

Well C. Lessor and lessee unknown. Location: About 1,300 feet east of Well A. Drilling completed: 1903. Production: Gas flowed blowing white for months.

Strata.

Ordovician System.

Thickness Depth.

Limestone, (thickness unrecorded, record similar to A and B).

**Log No. 107**

Well D. Lessor and lessee unknown. Location: 500 feet west of Well A. Drilling completed: 1920. Production: Three barrels, est., some gas.

Strata.

Ordovician System.

Thickness Depth

Limestone, (oil at 50) .....	50	50
Limestone .....	41	91
Limestone, (oil "sand") .....	40	131
Limestone .....	135	266
Limestone, gray .....	124	390
Total depth .....		390

NOTE—Wells A and D are standing about 90 feet in oil, and are estimated to be good for about three barrels.

**BREATHITT COUNTY.**

Production: Oil and Gas. Producing Sands: Pottsville (Pennsylvanian); Maxton, Big Injun, and Wier (Mississippian); Corniferous (Devonian); Niagaran (Silurian); and "Deep" or "Big Six" (Upper Ordovician).

**Log No. 108**

W. H. Pelfrey, No. 1, lessor. J. Fred Miles Oil & Gas Co. (oil well No. 1), lessee. Location: near Vaneleve, about 200 yds. above iron bridge on the O. & K. R. R. Commenced: Aug. 2, 1919. Completed: Aug. 30, 1918. Initial production: 1 bbl. oil. Authority: C. E. Bales.

Strata.

Pennsylvanian System.

Thickness Depth

Soil .....	12	12
Sandstone .....	38	50
Shale and shells .....	150	200
Sandstone .....	160	360
Shale .....	85	445

Mississippian System.			Thickness	Depth
Limestone (Little Lime) .....	25	470		
Shale .....	10	480		
Limestone (Big Lime) .....	165	645		
Shale (Waverly) .....	180	825		
Shale, red .....	30	855		
Shale .....	215	1,070		
Sandstone ("Berea Grit") .....	25	1,095		
Devonian System.				
Shale, brown .....	249	1,344		
Limestone (oil at 1,347 to 1,352) .....	155	1,499		
Limestone, brown .....	36	1,535		
Limestone, blue .....	40	1,575		
Shale .....	19	1,594		
Shale, red .....	7	1,601		
Total depth .....		1,601		

NOTE—The base of the Devonian and the top of the Silurian occurs within the 155 feet above 1,499 feet in depth. The oil occurring for 1347 to 1352 feet is in the Corniferous.

### Log No. 109

Terrell, No. 1, lessor. . Big Six Oil Co. (well No. 3), lessee. Location: Terrell farm,  $\frac{3}{4}$  mile up Sulphur Fork, Frozen Creek. Casing head elevation: 820 ft. A. T. Production: Gas, 5,820,000 cu. ft.

#### Strata.

Pennsylvanian System.			Thickness	Depth
Soil .....	17	17		
Shale, black .....	83	100		
Sand, white .....	60	160		
Shale, black .....	30	190		
Sand, white .....	210	400		
Shale, black .....	100	500		
Sand, white .....	145	645		
Shale, black .....	20	665		

#### Mississippian System.

Limestone (Little Lime) .....	10	675		
Shale, black .....	16	681		
Limestone (Big Lime) .....	139	820		
Shale (Waverly) .....	600	1,420		

Devonian System.	Thickness	Depth
Shale, black (Chattanooga) .....	170	1,590
Shale, white .....	14	1,604
Limestone .....	174	1,778
Gas sand (sample of gas sand was a coarse-grained, pebbly sand) .....	25	1,803
Total depth .....		1,803

NOTE—The Devonian limestone and the Silurian limestone are both included within the 174 feet above 1,778 feet in depth. As in the Taulbee wells, it is quite probable that the gas production occurring in this field about 175 feet below the base of the Devonian shale comes from the uppermost Ordovician beds.

### Log No. 110

J. S. Taulbee, No. 1, lessor. Location:  $\frac{3}{8}$  miles up Sulphur Fork of Frozen Creek. Casing head elevation: 805. A. T. Production: 5,000,000 cu. ft. gas, 175 ft. in sand.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	16	16
Shale, black .....	54	70
Sand, white .....	90	160
Sand, black .....	30	190
Sand, white .....	210	400
Sand, black .....	100	500
Sand, white .....	145	645
Shale, black .....	20	665

#### Mississippian System.

Limestone (Little Lime) .....	10	675
Shale, black .....	5	680
Limestone (Big Lime) .....	150	830
Shale (Waverly) .....	600	1,430

#### Devonian System.

Shale, black (Chattanooga) .....	170	1,600
Shale, white .....	14	1,614
Limestone (gas 1,790) .....	176	1,790
Limestone .....	25	1,815
Total depth .....		1,815

NOTE—The gas production in this well coming from a depth of 1,790 feet is either basal Silurian or uppermost Ordovician, and probably the latter. The Devonian limestone (Corniferous) and the Silurian limestone (Niagaran) are included within the 176 feet above 1,790.



**Log No. 111.**

J. S. Taulbee, No. 2, lessor. Big Six Oil Co. (well No. 2), lessee.  
Location: J. S. Taulbee farm,  $\frac{1}{2}$  mile up Sulphur Fork, Frozen Creek.  
Casing head elevation: 795. A. T.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil .....		10	10
Shale, black .....		190	200
Sand, white .....		50	250
Shale, black .....		150	400
Shale, sandy .....		200	600
Sand, white .....		40	640
Shale, white .....		25	665
Mississippian System.			
Limestone (Little Lime) .....		5	670
Shale, black .....		20	690
Sand, dark .....		10	700
Limestone (Big Lime) .....		100	800
Shale (Waverly) .....		520	1,320
Devonian System.			
Shale, black (Chattanooga) .....		277	1,597
Shale, white .....		30	1,627
Limestone (gas show 1,803) .....		176	1,803
Limestone (finished in Red Rock) .....		78	1,881
Total depth .....			1,881

NOTE—Base of Devonian and top of Silurian indefinite, but included in 176 feet of limestone above 1,803 feet. The gas is either Silurian or Ordovician, and not unlikely the latter.

**BRECKINRIDGE COUNTY.**

Production: Small Oil and Gas. Producing Sands: Cloverport Gas Sand  
(Lower Mississippian) Corniferous (Devonian).

**Log No. 111A.**

John Gibson, No. 1, lessor. Location:  $1\frac{1}{2}$  miles southwest of Sample Station. Completed: Spring, 1922. Authority: C. F. Dunbar, driller.

## Strata.

Mississippian System.		Thickness	Depth.
Shales, sandstones and limestones .....		1,280	1,280
Devonian System.			
Shale, black .....		100	1,380
Limestone .....		57	1,437
Limestone "sand," (oil show) .....		10	1,447
Total depth .....			1,447

## BUTLER COUNTY.

Production: Oil and Gas. Producing Sands: Unnamed (Mississippian);  
 "Deep" (Devonian-Silurian).

## Log No. 112

M. D. Duncan, No. 1, lessor. The Arkansas Natural Gas Co., lessee. Location: near Flat Rock P. O. Commenced: Jan. 15, 1921. Drillers: O. L. Drake and L. C. Jones. Casing head elevation by aneroid: 625. Authority: W. C. Eyl.

## Strata.

Mississippian System.	Thickness	Depth
Clay .....	15	15
Limestone .....	25	40
Shale .....	25	65
Limestone .....	15	80
Shale .....	56	136
Limestone .....	24	160
Shale .....	5	165
Limestone, gray .....	16	181
Shale, blue .....	24	205
Shale, brown .....	15	220
Shale, white .....	5	225
Limestone, white .....	35	260
Shale, blue, soft .....	25	285
Limestone (pay sand) .....	25	310
Limestone (pay sand), soft .....	10	320
Shale, blue .....	10	330
Limestone, white .....	35	365
Shale, blue .....	5	370
Limestone, white .....	80	450
Limestone, gray .....	130	580
Limestone, white, (salt water 700, 775 8¼ in. casing set) .....	195	775
Limestone, yellow .....	50	825
Limestone, gray .....	45	870
Limestone, white .....	8	878
Limestone, yellow .....	4	882
Limestone, black .....	10	892
Limestone, white .....	10	902
Limestone, black .....	20	922
Limestone, brown .....	58	980
Shale, brown .....	10	990
Limestone, brown .....	15	1,005
Limestone, black .....	10	1,015
Limestone, brown .....	73	1,088
Limestone, gray .....	187	1,275
Limestone, black .....	265	1,540

Devonian System.		Thickness	Depth
Shale, black (Chattanooga) .....		122	1,662
Shale, black, and limestone .....		13	1,675
Limestone, white .....		42	1,717
Silurian System.			
Limestone, gray .....		5	1,722
Limestone, brown, (oil show) .....		26	1,748
Limestone, grayish brown, soft .....		15½	1,763½
Limestone, light gray .....		39½	1,803
Limestone, dark gray .....		49	1,852
Limestone, (salt water) .....		19	1,871
Total depth .....			1,871

### CALDWELL COUNTY.

Production: Neither Oil or Gas to Date. Producing Sands: Tar Springs and Cypress occur but are not known to be productive in the county.

#### Log No. 113

Mrs. W. F. O'Hara (widow), No. 1, lessor. Climax Oil Corporation, lessee. Location: 3 miles east of Princeton, Ky., near Cedar Hill P. O. Drillers: Ray Brown and Scott Dalton. Tool dressers: Sid Hunter and Oscar Boyd. Contractors: Brown & Dalton.

#### Strata.

Mississippian System.		Thickness	Depth
Soil .....		15	15
Limestone .....		20	35
Shale, (water .....		5	40
Limestone, white .....		20	60
Granite .....		5	65
Shale, white .....		5	70
Limestone, blue .....		110	180
Limestone, sandy, (water) .....		20	200
Limestone, gray .....		45	245
Limestone "sand" (oil) .....		5	250
Limestone, white .....		25	275
Limestone, sandy .....		35	310
Limestone, gray .....		15	325
Limestone, white .....		20	345
Limestone, sandy .....		5	350
Limestone, white, sandy .....		25	375
Limestone, dark .....		25	400
Limestone, light gray .....		20	420
Limestone, gray, sandy .....		55	475

Mississippian System.	Thickness	Depth
Limestone, gray .....	25	500
Limestone, black .....	10	510
Limestone, dark gray .....	20	530
Limestone, light gray .....	20	550
Limestone, broken .....	10	560
Limestone, dark .....	25	585
Limestone, white .....	55	640
Limestone, dark gray .....	35	675
Limestone, light gray .....	5	680
Limestone, light, sandy .....	70	750
Limestone, gray .....	50	800
Limestone, shelly .....	15	815
Limestone, gray .....	15	830
Limestone, sandy .....	10	840
Limestone, dark .....	20	860
Limestone, gray .....	15	875
Limestone, dark .....	15	890
Limestone, shelly .....	20	910
Limestone, dark, sandy .....	5	915
Limestone, white .....	15	930
Limestone, light gray .....	10	940
Limestone, white .....	15	955
Limestone, gray .....	10	965
Limestone, gray .....	10	975
Limestone, dark .....	36	1,011
Shale .....	4	1,015
Limestone, dark .....	585	1,600
Shale and limestone .....	20	1,620
Limestone, white .....	10	1,630
Devonian System.		
Shale, black (Chattanooga) .....	125	1,755
Limestone, white .....	10	1,765
Shale and limestone .....	5	1,770
Total depth .....		1,770

### CARTER COUNTY.

Production: Oil and Gas. Producing Sands: Pottsville (Pennsylvanian);  
Big Injun, Wier and Berea (Mississippian).

#### Log No. 114

Levi Porter, No. 1, lessor. Elcero Oil & Gas Co. (well No. 1),  
lessee. Location: Near Lawton, Tygarts Creek above C. & O. R. R.  
Commenced: September 28, 1920. Completed: November 12, 1920.  
Initial production: 3 bbls oil. Authority: C. E. Bales.

Strata.		
Pennsylvanian System		
	Thickness	Depth
Soil .....	15	15
Shale and blue slate .....	65	80
Shale, sandy .....	10	90
Shale, black, and fire clay .....	25	115
Sandstone .....	55	170
Mississippian System.		
Shale, green, and red rock .....	30	200
Limestone ("Big Lime") .....	60	260
Sandstone, limey, (little show oil & gas) .....	12	272
Shale, blue .....	306	578
Sandstone, blue (salt water at 612) .....	34	612
Sandstone, white .....	24	636
Shale, blue .....	16	652
Sandstone, white .....	24	676
Shale, blue, soft .....	54	730
Sandstone, gray (show of oil) .....	23	753
Shale, black .....	17	770
Sandstone, blue (good showing of oil) .....	18	788
Total depth .....		788

**Log No. 115**

William Ofill, No. 1, lessor. Lawton Oil & Gas Co. (well No. 2), lessee. Location: Near Lawton, about 1 mile due south from well No. 3, on waters of Tygart Creek. Commenced: January, 1920. Completed: July, 1920. Initial Production: ———bbls. oil. Authority: C. E. Bales.

Strata.		
Mississippian System.		
	Thickness	Depth
Soil .....	6	6
Rock, blue, hard .....	80	86
Sandstone, (little show of oil) .....	7	93
Shale, and blue slate .....	212	305
Sandstone, gray .....	125	430
Shale, blue, and slate .....	47	477
Sandstone (Wier), (show of oil) .....	23	500
Shale, black (Sunbury) .....	17	517
Sandstone (Berea), (show of oil and gas) ....	36	553
Total depth .....		553

Salt water at 316 feet.

This well was never shot.

**Log No. 116**

J. W. Jacobs, No. 1, lessor. Lawton Oil & Gas Co., (well No. 1), lessee. Location: Near Tygart; near Lawton P. O., on waters of Tygart Creek. Commenced: October, 1919. Completed: May, 1920. Initial production: 2 bbls. oil. Authority: C. E. Bales.

Strata.		
Mississippian System.	Thickness	Depth
Soil .....	12	12
Rock, blue, hard .....	58	70
Sandstone, gray (show of oil & gas) (non-productive) .....	7	77
Shale, blue, and slate .....	228	305
Sandstone, light gray .....	95	400
Shale, sandy .....	20	420
Shale, blue, soft .....	37	457
Sandstone (Wier), (show of oil) .....	21	478
Shale, black (Sunbury) .....	16	494
Sandstone (Berea), (show of oil & gas) .....	50	544
Total depth .....		544
Small amount of salt water at 73 feet.		
Salt water in bottom sandstone.		

**Log No. 117**

J. W. Jacobs, No. 2, lessor. Lawton Oil & Gas Co. (well No. 3), lessee. Location: Near Lawton, about 800 ft. from well No. 1. Commenced: March, 1920. Completed, May, 1920. Initial production: — bbls. oil. Authority: C. E. Bales.

Strata.		
Mississippian System.	Thickness	Depth
Soil .....	15	15
Rock, blue, hard .....	20	35
Sandstone (good show of oil) (salt water) ...	11	46
Shale, blue, hard .....	253	299
Sandstone, gray (salt water at 325) .....	126	425
Sandstone (Wier), (little show of oil) .....	22	447
Shale, black (Sunbury) .....	16	463
Sandstone (Berea), (show of oil) .....	48	511
Total depth .....		511

This well was lost, due to collapse of casing when well was shot.



## Log No. 118

L. C. Glancy, No. 1, lessor. Location: Near Grayson. Completed: March 3, 1904. Production: Dry. Authority: New Domain Oil & Gas Company.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sand, white, hard .....	80	80
Limestone, white, hard .....	10	90
Fire clay, white, soft .....	20	110
Shale, black, hard, soft .....	45	155
Shale, dark, hard .....	10	165
Shale, white, hard, soft .....	30	195
Fire clay, white, soft .....	30	225
Shale, dark, hard .....	10	235
Sand, white, soft .....	10	245
Coal, black, soft .....	4	249
Shale, white, hard, soft .....	30	279
Sandstone, white, hard .....	10	289
Shale, white, hard, soft .....	20	309
Sand, white, hard .....	10	319
Shale, black, hard, soft .....	60	379
Sandstone, white, hard .....	15	394
Shale, dark, hard, soft .....	60	454
Sandstone, white, hard .....	40	494
Sand, white, open .....	70	564
Fire clay, white, soft .....	10	574
Sand, white, open .....	51	625
Shale, black, hard, soft .....	45	670
Mississippian System.		
Limestone (St. Louis), very hard .....	100	770
Shale (Waverly), white, very hard .....	330	1,100
Shale, white, hard, soft .....	110	1,210
Sandstone shells, white, soft and hard .....	165	1,375
Devonian System.		
Shale, brown, hard .....	510	1,885
Limestone, white, hard, soft .....	110	1,995
Limestone, white, sandy, hard .....	89	2,084
Total depth .....		2,084

NOTE—The base of the Devonian and the top of the Silurian occurs within the 110 feet of limestone above 1995 feet in depth. The top of the Ordovician may also be included within the last 89 feet of the record.

**Log No. 119**

Murphy and Burdette, No. 1, lessors. Barrick-Kentucky Oil & Gas Co. (well No. 3), lessees. Location: Near Denton, about  $1\frac{1}{2}$  miles east, on the A. C. & I. R. R. Commenced: September 8, 1919. Completed: October 18, 1919. Initial production: 500,000 cu. ft. gas per day. Authority: C. E. Bales.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	12	12
Shale, black (fresh water at 30 ft.) .....	28	40
Sandstone .....	30	70
Shale, black .....	46	116
Sandstone .....	15	131
Shale, black .....	184	215
Limestone .....	10	225
Shale, black .....	10	235
Sandstone, gray .....	4	239
Shale, black .....	61	300
Coal .....	3	303
Shale, black .....	29	332
Shale, white .....	7	339
Sandstone, gray .....	15	354
Coal .....	3	357
Sandstone, gray .....	20	377
Shale, black .....	28	405
Sandstone, gray (gas from 405 to 409) .....	20 $\frac{1}{2}$	425 $\frac{1}{2}$
Total depth .....		425 $\frac{1}{2}$

NOTE—This record is entirely within the Pottsville.

**Log No. 120**

Murphy and Burdette, No. 2, lessors. Barrick-Kentucky Oil & Gas Co. (well No. 4), lessees. Location: near Denton, about  $1\frac{1}{2}$  miles east, on the A. C. & I. R. R. Commenced: October 21, 1919. Completed: November 28, 1919. Initial production: 1,000,000 cu. ft. gas. Authority: C. E. Bales.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	14	14
Sandstone .....	61	74
Coal .....	4	78
Shale, black .....	12	90
Sandstone .....	20	110
Shale, blue .....	20	130

Pennsylvanian System.	Thickness	Depth
Coal .....	1	131
Shale, black .....	54	185
Sandstone .....	30	215
Shale, black .....	70	285
Sandstone .....	10	295
Shale, black .....	20	315
Sandstone .....	5	320
Shale, black .....	85	405
Sandstone .....	17	422
Shale, black .....	29	451
Sandstone (gas) .....	7	458
Shale, black .....	3	461
Sandstone, (gas at 465) .....	13	474
Total depth .....		474

NOTE—This well is entirely within the Pottsville.

#### Log No. 121

Richard Fraley, No. 1, lessor. Barrick-Kentucky Oil & Gas Co. (well No. 5), lessee. Location: Near Denton, about 2 miles east of Denton, on the A. C. & I. R. R. Commenced: November 10, 1919. Completed: December 12, 1919. Initial production: 900,000 cu. ft. gas. Authority: C. E. Bales.

##### Strata.

Pennsylvanian System.	Thickness	Depth
Soil, .....	21	21
Sandstone .....	9	30
Shale, black .....	25	55
Fire clay .....	18	73
Shale, black .....	69	142
Sandstone .....	6	148
Shale, white .....	147	295
Sandstone .....	5	300
Shale, black .....	50	350
Sandstone .....	20	370
Sandstone, (gas) .....	14	384
Total depth .....		384

NOTE—This well is entirely within the Pottsville.

#### Log No. 122

Richard Fraley, No. 2, lessor. Barrick-Kentucky Oil & Gas Co. (well No. 7), lessee. Location: near Denton, about 2 miles east of Denton, on the A. C. & I. R. R. Commenced: January 6, 1920. Completed: March 27, 1920. Initial production: 1,000,000 cu. ft. gas & salt water.

Strata.	Thickness	Depth
Pennsylvanian System.		
Soil .....	12	12
Sandstone .....	7	19
Shale, black .....	11	30
Sandstone, gray .....	35	65
Shale, black .....	25	90
Fire clay .....	10	100
Shale, gray .....	40	140
Shale, black .....	10	150
Shale, white .....	15	165
Sandstone .....	15	180
Shale, black, (gas at 225) .....	80	260
Sandstone .....	25	285
Shale, black .....	67	352
Coal .....	2	354
Shale, black .....	11	365
Shale, blue .....	31	396
Sandstone .....	7	403
Shale, black .....	37	440
Sandstone, (salt water and gas) .....	16	456
Total depth .....		456

NOTE—The record is entirely within the Pottsville.

### Log No. 123

Oil well  $\frac{1}{2}$  mile east of Denton, north of C. & O. R. R. right-of-way.  
Commenced: December 29, 1916. Completed: April 6, 1917. Pro-  
duction: 1 bbl. oil and some gas. Authority: C. E. Bales.

Strata.	Thickness	Depth
Pennsylvanian System.		
Soil .....	38	38
Shale, hard .....	287	325
Sandstone .....	20	345
Shale .....	15	360
Sandstone, (gas at 380) .....	90	450
Shale .....	25	475
Sandstone .....	69	544
Mississippian System.		
Limestone (Big Lime) .....	66	610
Shale (Waverly) .....	508	1,118
Shale, black (Sunbury) .....	18	1,136
Sandstone (Berea) .....	40	1,176
Shale, .....	12	1,188
Sandstone (Berea), (oil show at 1,223) .....	67	1,255
Shale, .....	14	1,269

Devonian System.		Thickness	Depth
Shale, brown-black .....		471	1,740
Shale, white .....		91	1,831
Limestone (Ragland Sand) .....		29	1,860
Silurian System.			
Limestone .....		60	1,920
Total depth .....			1,920

**Log No. 124**

J. C. Riffe, No. 1, lessor. Good Losers Oil Co. (well No. 1), lessee. Location: on Bolt's Fork, 4 miles east of Denton. Commenced: March 24, 1920. Completed: May 7, 1920. Production: 15-20 bbls. oil per day. Drilled by Patton and Foreman.

**Strata.**

Pennsylvanian System.		Thickness	Depth
Soil .....		35	35
Shale .....		65	100
Sandstone and shale .....		175	275
Shale, white and brown .....		125	400
Sandstone, white, (show of gas) .....		30	430
Sand, broken, and shale .....		170	600
Shale, black .....		200	800
Sandstone, white, (show of gas) .....		175	975
Shale, black .....		15	990

**Mississippian System.**

Limestone (Big Lime), (set 65½ casing at 990) .....	32	1,022
Shale, white .....	208	1,230
Sandstone (Big Injun), (salt water) .....	30	1,260
Shale (Waverly) .....	406	1,666
Shale, black (Sunbury) .....	20	1,686
Sandstone (Berea), (about 2 bbls. oil per day) .....	47	1,733
Shale, black .....	9	1,742
Sandstone, dark .....	5	1,747
Shale, dark .....	6	1,753
Sand (Berea) .....	30	1,783
Total depth .....		1,783

**Log No. 125**

Martha Stewart, No. 1, lessor. Barriek-Kentucky Oil & Gas Co. (well No. 8), lessee. Location: near Denton, about 2 miles east of Denton, on the A. C. & I. R. R. Commenced: March 29, 1920. Completed: January 8, 1921. Authority: C. E. Bales.

**Strata.**

Pennsylvanian System.		Thickness	Depth
Soil and shale .....		90	90
Coal .....		2	92

		Thickness	Depth
<b>Pennsylvania System.</b>			
Shale .....		13	105
Sandstone .....		75	180
Shale, black .....		10	190
Sandstone (show of oil at 200) .....		20	210
Shale .....		100	310
Sandstone .....		10	320
Shale, black .....		145	465
Sandstone .....		10	475
Coal .....		2	477
Shale .....		50	527
Sandstone .....		23	550
Shale .....		10	560
Sandstone .....		5	565
Shale .....		5	570
Sandstone .....		100	670
Shale .....		30	700
<b>Mississippian System.</b>			
Sandstone (Maxon) .....		90	790
Limestone .....		40	830
Shale, (Pencil Cave), (caved somewhat) .....		10	840
Limestone (Big Lime), not very hard .....		265	1,105
Shale, black .....		5	1,110
Limestone, blue .....		50	1,160
Shale, black .....		10	1,170
Limestone .....		60	1,230
Shale, white .....		20	1,250
Limestone .....		45	1,295
Shale and shells .....		35	1,330
Shale, black (Sunbury) .....		22	1,352
Sandstone (Berea Grit) .....		48	1,400
Shale .....		5	1,405
Sandstone (Berea Grit) .....		34	1,439
Shale .....		3	1,442
Sandstone (Berea Grit), hard .....		21	1,463
<b>Devonian System.</b>			
Shale, black .....		97	1,560
Shale, white .....		20	1,580
Shale, black (Chattanooga) .....		460	2,040
Shale, white .....		26	2,066
Limestone (Corniferous), (show of oil) .....		64	2,130
<b>Silurian and Ordovician Systems.</b>			
Shale, (show of oil) .....		1	2,131
Limestone, (show of oil and water) .....		329	2,460
Shale, black .....		15	2,475
Red rock .....		135	2,610
Shale, light .....		25	2,635



Devonian System.	Thickness	Depth
Red rock .....	43	2,678
Limestone and shells .....	4	2,682
Shale, blue .....	8	2,690
Limestone and shells .....	5	2,695
Shale, blue .....	10	2,705
Red rock .....	10	2,715
Shale, blue, sandstone, shells .....	90	2,805
Red rock .....	15	2,820
Shale, blue, and shells .....	180	3,000
Shale and shells .....	115	3,115
Limestone, sandy .....	100	3,215
Shale, sandstone and shells (Calciferous) .....	230	3,445
Limestone, gray .....	10	3,455
Shale, limestone and shells .....	10	3,465
Shale, blue, soft .....	10	3,475
Shale, white, limestone and shells .....	155	3,630
Limestone .....	290	3,920
Shale, black .....	5	3,925
Total depth .....		3,925

NOTE—The base of the Silurian and the top of the Ordovician undoubtedly occurs in the 329 feet of limestone above 2,450 feet in depth. This well finished in the Knox Dolomite (Cambrian) and is the deepest record in northeastern Kentucky to date.

### Log No. 126

Martha Stewart, No. 2, lessor. Barrick-Kentucky Oil & Gas Co. (well No. 6), lessee. Location: near Denton, about 1½ miles east of Denton, on the A. C. & I. R. R. Commenced: January 13, 1920. Completed: February 21, 1920. Initial production: 1,600,000 cu. ft. gas. Authority: C. E. Bales.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	16	16
Shale .....	49	65
Sandstone .....	10	75
Shale, white .....	15	90
Black mud (clay?) .....	85	175
Sandstone .....	10	185
Shale, black, soft .....	13	198
Sandstone .....	7	205
Shale, black, soft .....	27	232
Sandstone .....	18	250
Shale, black, soft .....	5	255
Sandstone .....	3	258

Pennsylvania System.	Thickness	Depth
Coal .....	2	260
Shale, blue .....	30	290
Sandstone .....	20	310
Shale .....	20	330
Sandstone, (gas from 334 to 355) .....	28	358
Total depth .....		358

NOTE—This record is entirely within the Pottsville.

## CHRISTIAN COUNTY.

Production: Small Oil and Gas. Producing Sands: Unnamed  
(Mississippian).

### Log No. 127

W. E. Denton, No. 1, lessor. Location:  $1\frac{1}{4}$  miles east of Crofton.  
Commenced: August, 1919. Completed: March, 1920. Authority:  
J. M. Huggins, driller.

#### Strata.

Mississippian System.	Thickness	Depth
Broken limestone .....	6	6
Limestone, hard .....	12	18
Limestone, hard, flinty .....	20	38
Limestone, hard .....	23	61
Shale, hard .....	8	69
Limestone .....	57	126
Shale, black, hard .....	9	135
Shale (red rock) .....	5	140
Shale, dark blue, hard .....	75	215
Shale, hard .....	15	230
Limestone, "niggerhead," hard .....	1	231
Shale, white, hard .....	33	264
Limestone, hard .....	9	273
Shale, black, hard .....	4	277
Limestone, hard, gritty, sandy .....	3	280
Shale (red rock) .....	3	283
Shale, blue .....	16	299
Shale, black, hard .....	11	310
Shell .....	2	312
Shale, blue, hard .....	12	324
Shell, hard, coarse, sandy .....	8	332
Sand, (little oil) .....	3	335
Shale, black, sandy .....	2	337
Shale, blue, hard .....	23	360
Limestone, hard .....	3	363
Shale, blue, hard .....	10	373



A SLEDGE POOL DRILLING.

One of the most productive shallow oil pools of the Allen-Warren County field was the Sledge Pool on Bays Creek. Portable rigs similar to that shown above were used and the pool was rapidly drilled up.

Mississippian System.	Thickness	Depth
Shale, pink .....	2	375
Limestone, shell .....	4	379
Rock, pink .....	10	389
Shale, brown, hard .....	4	393
Shale, gray, hard .....	11	404
Limestone, variable .....	66	470
Shale, hard, rotten .....	6	476
Shale .....	5	481
Limestone, hard .....	5	486
Shale, gray, hard .....	4	490
Limestone .....	10	500
Limestone, (little salt water) .....	6	506
Shale, black, hard .....	10	516
Shale, black, hard .....	9	525
Sand, gray, coarse, (gas) .....	10	535
Sand, gray, coarse .....	20	555
Limestone, white, hard .....	5	560
Limestone, hard .....	20	580
Shale, hard .....	5	585
Limestone .....	40	625
Limestone .....	7	632
Shale (break), hard .....	2	634
Limestone .....	6	640
Sand, (show of oil) (shot) .....	8	648
Limestone, dark brown .....	10	658
Limestone, light brown, (water) .....	119	777
Limestone .....	43	820
Limestone, gray, gritty, (water) .....	2	822
Limestone, white, (water) .....	16	838
Limestone, gray, dark .....	3	841
Limestone, brown, fine .....	26	867
Total depth .....		867

NOTE—This record is entirely within the Mississippian.

### Log No. 128

Croft, No. 1, lessor. Location: 1 mile northeast of Crofton. Completed: May 18, 1920. Authority: J. M. Huggins, driller.

#### Strata.

Mississippian System.	Thickness	Depth
Soil, red, and clay .....	4	4
Limestone, loose .....	6	10
Shale, hard, and limestone .....	10	20

## Mississippian System.

	Thickness	Depth
Shale, hard, and shells .....	22	42
Limestone .....	3	45
Shale, hard .....	2	47
Sandstone, gray .....	15	62
Shale, hard .....	6	68
Shale, sandy .....	4	72
Sand, white, (water) .....	4	76
Shale, black .....	10	86
Shale, dark, hard .....	7	93
Limestone, gray, brown .....	17	110
Shale (break) .....	1	111
Limestone, dark and brown .....	36	147
Shale, and shale, hard .....	65	212
Sand, coarse and gray .....	6	218
Shale, hard .....	8	226
Sand, gray, coarse .....	6	232
Sand, (water) .....	9	241
Shale, dark, hard .....	8	249
Shell .....	1	250
Shale, black, hard .....	8	258
Limestone, hard .....	4	262
Shale, hard .....	4	266
Shale, white, hard .....	18	284
Limestone, brown, hard .....	12	296
Shale, black, hard .....	4	300
Limestone, gray, coarse, gritty .....	4	304
Shale, black, hard .....	4	308
Shale, red .....	4	312
Shale, blue .....	28	340
Limestone, hard .....	3	343
Shale, black, hard .....	10	353
Sand, (show of oil) .....	7	360
Shale, black, hard .....	20	380
Limestone, dark, hard .....	4	384
Shale, gray, hard .....	14	398
Shell .....	2	400
Shale, black, hard .....	3	403
Shale, red .....	4	407
Limestone, blue, and red rock .....	3	410
Shale, brown, hard .....	13	423
Limestone, brown .....	51	474
Shale, hard, rotten .....	4	478
Limestone, brown .....	4	482
Shale, black, hard .....	4	486
Limestone, brown .....	4	490
Shale, black, hard .....	3	493

Mississippian System.	Thickness	Depth
Shale (break) .....	10	535
Sandstone, black .....	5	540
Limestone, dark, hard .....	60	600
Sandstone, black, (oil and gas show) .....	6	606
Limestone, black .....	4	610
Limestone, white .....	20	630
Limestone, dark .....	21	651
Limestone, black, (sulphur water) .....	5	656
Limestone, white .....	20	676
Limestone, black .....	10	686
Limestone, black .....	14	700
Limestone, dark .....	20	720
Limestone, black .....	20	740
Limestone, white, fine .....	6	746
Limestone, light .....	10	756
Limestone, dark .....	30	786
Limestone, light .....	14	800
Limestone, black, sandy .....	30	830
Limestone, dark .....	40	870
Limestone, dark .....	40	910
Limestone, light .....	10	920
Limestone, black .....	30	950
Limestone, gray .....	45	995
Shale (break), (47½ casing) .....	9	1,004
Limestone, brown .....	20	1,024
Limestone, sandy .....	10	1,034
Limestone, sandy, hard .....	16	1,050
Limestone, brown .....	10	1,060
Limestone, light .....	15	1,075
Limestone, light brown .....	25	1,100
Limestone, brown, (top of black limestone)..	20	1,120
Limestone, black .....	35	1,155
Shale, limy .....	45	1,200
Shale, limy .....	28	1,228
Limestone, black, hard .....	7	1,235
Shale, limy .....	50	1,285
Shale, hard, limy .....	11	1,296
Shale, dark, limy .....	64	1,360
Limestone, light brown .....	40	1,400
Limestone light gray .....	80	1,480
Limestone, light .....	25	1,505
Limestone, white .....	5	1,510
Limestone (cap rock), hard .....	2	1,512
Limestone, light, sandy, (oil show) .....	16	1,528
Limestone (cap rock), white, hard .....	5	1,533
Sand, white, (oil show) .....	3½	1,536½

Mississippian System.	Thickness	Depth
Sand, light, limy .....	4½	1,541
Sand, hard .....	9	1,550
Sand, (oil show) .....	10	1,560
Sand, shaly .....	5	1,565
Sand, light, coarse .....	5	1,570
Sand, (oil) .....	10	1,580
Total depth .....		1,580

Well shot at from 1518 to 1538, 40 qts.

Well shot at from 1518 to 1580, 165 qts.

### Log No. 129

Earnest Lowther, No. 1, lessor. Huggins and Son, Drillers. Location: near Crofton.

#### Strata.

Mississippian System.	Thickness	Depth
Clay .....	6	6
Limestone .....	10	16
Shale, black .....	18	34
Limestone, (8¼" casing, 41') .....	51	85
Shale, sandy .....	30	115
Sand, white, limy, hard .....	15	130
Shale, black .....	35	165
Shale, light .....	40	205
Limestone, dark .....	40	245
Shale, black, sandy .....	15	260
Limestone .....	32	292
Limestone and shale, hard .....	3	295
Sandstone .....	5	300
Shale, black .....	20	320
Limestone, dark, hard .....	10	330
Shale, sandy, red .....	10	340
Limestone, hard .....	5	345
Shale, light .....	5	350
Limestone, sandy, (oil show) .....	15	365
Limestone, white .....	21	386
Limestone, dark .....	4	390
Limestone, sandy, (oil show) .....	6	396
Limestone, dark brown, (6½" casing) .....	24	420
Limestone, hard .....	40	460
Shale, black .....	40	500
Limestone, sandy, (gas and oil show) .....	6	506
Limestone .....	19	525



Mississippian System.	Thickness	Depth
Limestone shell .....	1	494
Shale, gray, hard .....	10	504
Shale, hard .....	2	506
Limestone .....	28	534
Shale, black, hard .....	36	570
Incomplete depth .....		570

The tools became lodged in the well, and the drilling was stopped temporarily at 570 feet. Remainder of record not secured. The part given is entirely in the Mississippian.

## CHAPTER III.

### CLAY COUNTY.

Production: Gas. Producing Sand: Corniferous (Devonian).

#### Log No. 130

Peabody Coal Co., No. 1, Unit No. 1. Location: Heeter Creek, 4½ miles east of Manchester. Commenced: April 7, 1919. Completed: June 3, 1919. Production: Dry.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil, clay .....	16	16
Shale .....	14	30
Sandstone, hard .....	70	100
Sandstone, hard .....	20	120
Shale, black, soft .....	8	128
Sandstone, white, hard .....	22	150
Shale .....	10	160
Coal .....	3	163
Sandstone, hard .....	132	305
Shale, dark .....	25	330
Sandstone, hard, fine .....	10	340
Shale .....	60	400
Sandstone, white, hard .....	45	445
Shale, black .....	50	535
Sandstone, hard, fine .....	50	585
Sandstone, hard .....	5	590
Shale .....	40	630
Sandstone .....	35	665
Sandstone, white, hard, (salt) .....	369	1,034
(small gas flow 740, water 950)		
Shale .....	10	1,044
Sandstone, white, hard .....	26	1,070
Shale .....	45	1,115
Mississippian System.		
Sandstone, black, hard .....	6	1,121
Sandstone, gray, hard .....	39	1,160
Shale, red rock and shells .....	20	1,180
Shale, white .....	80	1,260
Limestone (Little Lime), dark, hard .....	20	1,280
Shale (pencil cave), blue, soft .....	5	1,285
Limestone (Big Lime) .....	238	1,523
Sandstone, limy .....	57	1,580
Shale, red, soft .....	40	1,620
Limestone, red, hard .....	20	1,640
Shale .....	100	1,740

Strata.		Thickness	Depth
Mississippian System.			
Limestone, hard .....		30	1,770
Shale .....		30	1,800
Sand, (little gas in top, 1,800) .....		20	1,820
Shale and limestone shells .....		30	1,850
Devonian System.			
Shale, black (Chattanooga) .....		171	2,021
Limestone (Irvine Sand) .....		94	2,115
Shale .....		30	2,145
Total depth .....			2,145

**Log No. 131**

Peabody Coal Co. Well No. 2. Location: Sutton Branch of Goose Creek, 5 miles northeast of Manchester, Clay County. Production: Dry.

Strata.		Thickness	Depth
Pennsylvanian System.			
Clay .....		16	16
Sandstone, hard .....		24	40
Shale, black .....		15	55
Sandstone, hard .....		65	120
Shale, light .....		45	165
Sandstone, (salt water) .....		55	220
Sandstone, (small gas at 362) .....		256	476
Coal .....		2	478
Shale, black .....		82	560
Sandstone .....		145	705
Shale, black .....		10	715
Limestone .....		5	720
Shale, red .....		95	815
Shale black .....		55	870
Sandstone, hard, fine .....		50	920
Mississippian System.			
Shale .....		35	955
Limestone (Little Lime) .....		25	980
Shale (pencil cave) .....		4	984
Limestone (Big Lime) .....		264	1,230
Shale, red, soft .....		60	1,290
Limestone, red .....		30	1,320
Limestone, black .....		40	1,360
Shale, black .....		40	1,400
Limestone .....		60	1,460
Shale, white .....		50	1,510

Devonian System.		Thickness	Depth
Shale, black .....		132	1,642
Sand .....		13	1,655
Shale, brown .....		35	1,690
Limestone (Irvine Sand) .....		95	1,785
Shale, black .....		35	1,820
Sandstone, (small gas) .....		25	1,845
Shale, red .....		65	1,910
Shale, red .....		25	1,935
Limestone shell .....		25	1,960
Shale, red .....		20	1,980
Shale .....		11	1,991
Total depth .....			1,991

Dry and plugged, with all casing pulled. The Irvine "sand" was principally all limestone, with 20 feet in the center which was nearly all "sand" and very hard, and no show for oil or gas.

NOTE—The Devonian-Silurian contact and the Silurian-Ordovician contact is not defined. The well pierced the top of the Ordovician rocks.

### Log No. 132

Peabody, No. 3, lessor. Location: On Long Fork of Hector's Creek of Red River, in Clay County. Commenced: August 18, 1919. Completed: November 19, 1919. Authority: E. H. Mould, Pineville, Ky.

#### Strata.

Pennsylvanian System.		Thickness	Depth
Clay .....		15	15
Sand .....		65	80
Shale .....		40	120
Sand .....		35	155
Shale, black .....		235	390
Limestone, white .....		50	440
Sand, white .....		50	490
Shale and limestone shells .....		125	615
Salt sand, white, hard .....		390	1,005
Shale, black .....		18	1,023
Mississippian System.			
Limestone, red .....		17	1,040
Shale, sandy, red .....		30	1,070
Limestone, white .....		20	1,090
Shale, sandy, red .....		50	1,140
Shale, black .....		35	1,175
Limestone, black .....		5	1,180

	Thickness	Depth
Mississippian System.		
Shale .....	20	1,200
Limestone .....	20	1,220
Shale (pencil cave), soft, cave .....	6	1,226
Limestone (Big Lime) .....	274	1,500
Shale, black .....	10	1,510
Shale, sandy, red .....	70	1,580
Shale, white .....	100	1,680
Shale and limestone shells .....	115	1,795
Devonian System.		
Shale, brown .....	162	1,957
Limestone (Irvine "sand"), dark, hard .....	74	2,031
Shale and limestone shells (principally limestone, with neither oil or gas) .....	59	2,090
Total depth .....		2,090
Water hole, 160.		
Dry and plugged, with all casing pulled.		
Conductor, 16 feet pulled.		
10" casing, 64 feet pulled.		
3¼" casing, 1020 feet pulled.		
6⅝" casing, 1270 feet pulled.		

### Log No. 133

Peabody No. 4, lessor. Location: 12 miles southeast of Manchester, on Otter Creek of Goose Creek. Commenced: April 24, 1920. Completed July 30, 1920. Production: Dry, Casing pulled, hole plugged. Authority: P. Kennedy, Barbourville, Ky.

#### Strata.

	Thickness	Depth
Pennsylvanian System.		
Soil .....	31	31
Shale, blue, hard .....	49	80
Coal .....	2	82
Shale, blue, hard .....	53	135
Sand .....	10	145
Shale, black, hard .....	20	165
Sand, white .....	128	293
Shale, black, hard .....	12	305
Shale, and limestone shells, black .....	15	320
Sand, white .....	100	420
Shale, blue, hard .....	65	485
Shale, hard, and limestone shells .....	45	530
Shale, black, hard .....	35	565
Sand, broken, (gas at 590) .....	30	595
Shale, blue, hard .....	10	605

Pennsylvanian System.		Thickness	Depth
Salt sand, (water at 800) .....	440	1,045	
Shale, blue, hard .....	10	1,055	
Sand, white .....	100	1,155	
Shale, blue, hard .....	55	1,210	
Limestone, black .....	20	1,230	
Shale, blue, hard .....	10	1,240	
Shale, red .....	40	1,280	
Sand, blue .....	25	1,305	
Sand, white .....	135	1,440	
Shale, blue, hard .....	10	1,450	
Mississippian System.			
Limestone (Little Lime) .....	20	1,470	
Sandstone (pencil cave) .....	10	1,480	
Limestone (Big Lime) .....	225	1,705	
Sand, white .....	20	1,725	
Limestone, red .....	23	1,748	
Red rock .....	27	1,775	
Sand, red .....	55	1,830	
Limestone, blue .....	5	1,835	
Sand, blue .....	210	2,045	
Devonian System.			
Shale, hard .....	25	2,070	
Shale, black .....	129	2,199	
Sand, Irvine .....	68	2,267	
Shale, white, hard .....	17	2,284	
Total depth .....		2,284	

**Log No. 134**

Oneida Institute, No. 1, lessor. C. P. Kennedy, et al., No. 1, lessees. Location: just north of South Fork of Kentucky River, near Oneida, Clay County, Kentucky. Commenced: 1917. Completed: 1918. Production: Dry; some little gas. Altitude: 735 feet. Authority: D. C. Moffett, contractor.

**Strata.**

Pennsylvanian System.		Thickness	Depth
Soil .....	23	23	
Sandstone, very hard .....	73	96	
Shale, brown .....	7	103	
Sandstone .....	17	120	
Shale, brown .....	43	163	
Sandstone, very hard .....	10	173	
Shale, white .....	3	176	
Sandstone, hard .....	103	278	
Shale, brown .....	14	292	

	Thickness	Depth
Pennsylvanian System.		
Sandstone .....	23	315
Sand, dark and shale .....	3	318
Sandstone, white, hard .....	32	350
Shale, gray .....	15	365
Sand, limy .....	4	369
Shale, brown .....	29	398
Sand, limy .....	7	405
Shale, brown .....	10	415
Sandstone, white, hard .....	137	552
Shale, brown .....	5	557
Limestone (?) .....	7	564
Shale, brown .....	31	595
Red rock .....	15	610
Shale, white .....	10	620
Limestone .....	6	626
Shale, gray .....	60	686
Limestone .....	2	688
Shale, white .....	8	696
Limestone .....	13	709
Sandstone .....	10	719
Shale, brown .....	2	721
Shale, white .....	11	732
Mississippian System.		
Big Lime (St. Louis), (gas at 1,025) .....	259	991
Shale, gray .....	43	1,034
Shale, red .....	53	1,087
Shale, white .....	56	1,143
Shale, brown, and limestone shells .....	67	1,210
Limestone and shale .....	7	1,217
Shale, gray .....	60	1,277
Devonian System.		
Shale, brown, (gas at 1,300) .....	145	1,422
Shale, gray .....	15	1,437
Shale, black .....	17	1,454
Limestone (Irvine Sand), cap very hard .....	10	1,464
Limestone (Irvine Sand) .....	92	1,556
Shale, blue .....	44	1,600
Shale, gray .....	90	1,690
Shale, red .....	42	1,732
Shale, green .....	31	1,763
Shale, white .....	42	1,805
Shale, red .....	10	1,815
Limestone .....	5	1,820
Shale, gray, and limestone shells .....	6	1,826
Limestone .....	10	1,836
Sand, white, limy .....	20	1,856



## Devonian System.

	Thickness	Depth
Limestone and shale, sandy .....	14	1,870
Limestone .....	15	1,885
Shale, white .....	10	1,895
Limestone, very hard .....	126	2,021
Total depth .....		2,021

8 inch casing, 23 feet.

6 $\frac{1}{4}$  inch casing, 742 feet.

Gas at 235, 1,025 and 1,300 feet.

1st water 73 feet, 1st salt water 285 feet and again at 350, 440, 490, and 665 feet.

NOTE—This well finished in the Ordovician. Devonian-Silurian and Silurian-Ordovician contacts are not defined. The record is not very accurate.

## Log No. 135

Beverly Burns, No. 1, lessor. Oneida Oil & Gas Co. (formerly C. T. Cherry), No. 3, lessee. Location: Bullskin Creek, 2 miles south-east of Oneida, and near Seth post office, Clay County. Commenced: in 1918. Completed: in 1918. Production: 780,000 cu. ft. gas. Rock pressure: 270 lbs. Altitude: 795 feet.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Soil .....	15	15
Shale, gray .....	40	55
Coal .....	3	58
Sandstone .....	175	233
Shale .....	5	238
Sandstone .....	222	460
Sandstone, hard and fine .....	28	488
Sandstone .....	65	553
Sandstone, hard and fine .....	50	603
Shale .....	20	623
Sandstone, hard .....	46	669
Shale, white .....	145	814
Sandstone .....	54	868

## Mississippian System.

Limestone (Big Lime) .....	225	1,093
Shale (Red Rock) .....	15	1,108
Shale, sandy .....	70	1,178
Shale, brown .....	190	1,368

Devonian System.	Thickness	Depth
Shale, black (Chattanooga) .....	135	1,503
Shale, gray .....	50	1,553
Limestone (Irvine "sand") .....	68	1,621
Shale, black, hard .....	2	1,623
Total depth .....		1,623

**Log No. 136**

Irven Hensley, No. 1, lessor. Oneida Oil & Gas Co., No. 1, lessee.  
 Location: on Red Bird Creek, 2 miles above Oneida. Commenced: Jan. 1, 1920. Completed: Feb. 3, 1920. Production: 1,350,000 cu. ft. gas. Rock pressure: 310 lbs. Altitude: 780 feet.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Soil .....	30	30
Shale, hard, and sand .....	120	150
Sandstone, hard .....	490	640
Shale and red rock .....	60	700
Shale and limestone .....	145	845
Mississippian System.		
Limestone, (Big Lime) .....	260	1,105
Shale .....	45	1,150
Shale (red rock) .....	60	1,210
Shale, hard, gritty .....	170	1,380
Devonian System.		
Shale, brown .....	160	1,540
Shale, black .....	30	1,570
Limestone (Irvine "sand"), (gas) .....	10	1,580
Total depth .....		1,580

**Log No. 137**

H. M. Burns, No. 1, lessor. Oneida Oil & Gas Co., No. 4, lessee.  
 Location: on Bullskin Creek, 2½ miles southeast of Oneida. near Seth P. O., Clay County. Commenced: Aug. 18, 1920. Completed: Nov. 18, 1920. Production: 474,000 cu. ft. gas. Rock pressure: 300 lbs. (Apr. 29, 1921.) Altitude: 800 feet.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Alluvium, yellow, sandy clay .....	20	20
Sandstone, yellow, hard .....	80	100
Shale, blue, soft .....	20	120
Sandstone, yellow, hard .....	500	620
Shale, blue, soft .....	245	865

Mississippian System.		Thickness	Depth
Limestone (Big Lime), white, hard .....	335	1,200	
Shale, blue, soft .....	230	1,430	
Devonian System.			
Shale, black, soft (Chattanooga) .....	205	1,635	
Shale, blue, soft, fire clay .....	13	1,648	
Limestone (Irvine "sand"), brown, hard (gas) .....	37	1,685	
Total depth .....		1,685	
8 $\frac{1}{4}$ inch casing, 20 feet.			
6 $\frac{5}{8}$ inch casing, 650 feet.			

## CLINTON COUNTY.

Production: Oil and Gas. Producing Sands: Beaver (Mississippian); Sunnybrook and Trenton (Ordovician); and Beech Bottom (Knox Dolomite age?) (Cambro-Ordovician).

## Log No. 138

G. W. Ward, No. 1, lessor. Completed: October 3, 1907. Production: Dry. Abandoned. Authority: The New Domain Oil & Gas Co.

## Strata.

Mississippian System.		Thickness	Depth
Clay, red, soft .....	11	11	
Limestone, blue, hard .....	219	230	
Shale, blue, hard, soft (New Providence) ....	40	270	
Devonian System.			
Shale, black, soft (Chattanooga) .....	20	290	
Ordovician System.			
Limestone, light gray (Saluda) .....	325	615	
Limestone, dark gray, hard .....	200	815	
Shale (pencil cave), dark blue, soft .....	2	817	
Limestone, dark gray, hard .....	18	835	
Total depth .....		835	

## Log No. 139

G. W. Boles, No. 1, lessor. Completed: June 11, 1907. Production: Dry. Authority: The New Domain Oil & Gas Company. Location: Fannis Creek.

## Strata.

Mississippian System.		Thickness	Depth
Soil .....	5	5	
Limestone, blue, hard .....	323	328	
Shale, blue, hard, soft .....	55	383	

Devonian System.	Thickness	Depth
Shale, black, soft (Chattanooga) .....	20	403
Ordovician System.		
Limestone, gray, hard .....	413	816
Shale (pencil cave), blue, soft .....	2	818
Limestone, light gray, hard .....	97	915
Total depth .....		915

**Log No. 140.**

Jacob Speck, No. 1, lessor. Completed: March 1, 1907. Production: Dry. Authority: The New Domain Oil & Gas Co. Location: 2 miles south of Albany.

## Strata.

Mississippian System.	Thickness	Depth
Limestone, black, hard, (sulphur water at 40)	55	55
Limestone, blue, hard .....	10	65
Shale, black, hard, soft .....	10	75
Limestone, variable .....	250	325
Shale, blue, hard, soft (New Providence) ....	20	345
Devonian System.		
Shale, black, soft (Chattanooga) .....	20	365
Ordovician System.		
Limestone, white, (gas at 580 to 885) .....	565	930
Shale (pencil cave), soft .....	5	935
Limestone, hard, variable .....	995	1,930
Limestone, blue, soft .....	20	1,950
Total depth .....		1,950

**Log No. 141**

J. T. Tompkins, No. 1, lessor. Completed: December 27, 1906. Production: first day 40 bbls. Authority: The New Domain Oil & Gas Company. Location: Fannis Creek of Illwill Creek.

## Strata.

Devonian System.	Thickness	Depth
Clay, soft .....	5	5
Shale, black, soft (Chattanooga) .....	18	23
Ordovician System.		
Limestone, white, hard (Saluda) .....	27	50
Limestone, hard, variable, (oil) .....	226	276
Total depth .....		276

**Log No. 142**

C. L. Holsapple, No. 1, lessor. Completed: November 24, 1904.  
 Production: Dry. Abandoned. Authority: New Domain Oil & Gas Co.  
 Location: near Forrest Co. Hage P. O., headwaters of Willis Creek.

## Strata.

Mississippian System.	Thickness	Depth
Limestone, blue, hard .....	30	30
Limestone, gray, soft .....	200	230
Limestone, blue, hard .....	110	340
Devonian System.		
Shale, black, soft (Chattanooga) .....	25	365
Ordovician System.		
Limestone, light, hard .....	435	800
Shale, blue, hard, soft .....	15	815
Limestone, light, hard .....	707	1,522
Total depth .....		1,522
Show of oil at 750.		
Vein of gas at 238 and 1,135 feet.		

**Log No. 143**

J. F. Brentz, No. 1, lessor. Completed: October 17, 1904. Production: Dry. Authority: The New Domain Oil & Gas Company. Location: Near Ida Post Office.

## Strata.

Mississippian System.	Thickness	Depth
Limestone, blue, hard .....	180	180
Limestone, white, hard .....	170	350
Limestone, white, hard .....	180	530
Limestone, gray, hard .....	150	680
Devonian System.		
Shale, black, medium (Chattanooga) .....	20	700
Ordovician System.		
Limestone, dark blue, (small gas at 904) ....	270	970
Shale (pencil cave) .....	7	977
Limestone, brown, hard .....	110	1,087
Limestone, dark blue, medium .....	253	1,345
Limestone, dark blue, medium .....	15	1,360
Total depth .....		1,360

**Log No. 144**

John Johnson, No. 1, lessor. Completed: November 6, 1906.  
 Authority: The New Domain Oil & Gas Company. Location: Wolfe  
 River, near Tenn. Line.

Strata.		
Mississippian System.	Thickness	Depth
Soil and shells .....	14	14
Shale, black, hard, medium (water 32) .....	18	32
Devonian System.		
Shale, black, soft (Chattanooga) .....	22	54
Ordovician System.		
Limestone, black, variable (gas 330) .....	546	600
Shale (pencil cave), blue, soft .....	2	602
Limestone, gray, variable (gas 745) .....	738	1,340
Limestone, gray, hard (oil 1,342) .....	130	1,470
Limestone, gray, hard .....	180	1,650
Limestone, white, hard (salt water 1,655) ...	150	1,800
Limestone, gray, hard, gritty .....	200	2,000
Total depth .....		2,000

**Log No. 145**

L. D. Bow; No. 1, lessor. Completed: November 8, 1907. Pro-  
 duction: Dry. Authority: The New Domain Oil & Gas Company. Lo-  
 cation: Fannis Creek.

Strata.		
Mississippian System.	Thickness	Depth
Clay, red, soft .....	14	14
Shale, blue, hard soft .....	290	304
Devonian System.		
Shale, black, soft (Chattanooga) .....	24	328
Ordovician System.		
Limestone, gray, medium .....	502	830
Shale (pencil cave), soft .....	6	836
Limestone, dark gray, medium .....	37	873
Total depth .....		873

**Log No. 146**

E. Luttrell, No. 1, lessor. Completed: January 7, 1905. Production: Dry. Authority: The New Domain Oil & Gas Company. Location: near Cumberland River at Ida P. O.

## Strata.

Mississippian System.	Thickness	Depth
Limestone, blue, hard .....	20	20
Limestone, gray, hard .....	40	60
Limestone, white, soft .....	200	260
Devonian System.		
Shale, black, soft (Chattanooga) .....	25	285
Ordovician System.		
Limestone, white, hard .....	615	900
Shale (pencil cave), brown, soft .....	3	903
Limestone, brown, hard .....	197	1,100
Limestone, white, hard .....	172	1,272
Shale (pencil cave), brown, soft .....	15	1,287
Limestone, white, hard .....	213	1,500
Total depth .....		1,500

**Log No. 147**

G. A. Thurman, No. 1, lessor. Completed: August 14, 1907. Production: Dry. Well abandoned. Authority: The New Domain Oil & Gas Company. Location: Fannis Creek of Illwill Creek just above forks.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	12	12
Limestone, blue, soft .....	6	18
Clay .....	34	52
Limestone, dark gray, soft .....	252	304
Shale, blue, hard, soft (New Providence) ....	60	364
Devonian System.		
Shale, black, soft (Chattanooga) .....	25	389
Ordovician System.		
Limestone, gray, medium (Saluda) .....	171	560
Shale (pencil cave), soft .....	3	563
Limestone, gray, hard .....	327	890
Total depth .....		890

NOTE—Only the upper part of the 171 feet above 560 feet in depth is Saluda.



**Log No. 148**

W. F. Braswell, No. 1, lessor. Completed: July 26, 1907. Production: Dry, abandoned. Authority: The New Domain Oil & Gas Company. Location: 2 miles east of Beech Bo Hon.

Strata.		
Mississippian System.	Thickness	Depth
Clay, red, soft .....	45	45
Gravel .....	10	55
Clay, blue, soft .....	10	65
Limestone, gray, hard .....	40	105
Limestone, dark, hard .....	60	165
Limestone, dark, hard .....	60	225
Limestone, white, medium .....	240	465
Devonian System.		
Shale, black, soft (Chattanooga) .....	20	485
Ordovician System.		
Limestone, white, soft (Saluda in part) .....	315	800
Limestone, black, white, hard .....	150	950
Limestone, white, hard .....	325	1,275
Total depth .....		1,275

NOTE—Only the upper portion of the 315 feet above 800 feet in depth is referable to the Saluda.

**Log No. 149**

J. T. Tompkins, No. 3, lessor. Completed: October 16, 1907. Production: 10 bbls. oil. Authority: The New Domain Oil & Gas Company. Location: Fannis Creek.

Strata.		
Mississippian and Devonian Systems.	Thickness	Depth
Limestone and black shale .....	280	280
Ordovician System.		
Limestone, gray, medium .....	270	550
Shale (pencil cave), dark blue, soft .....	3	553
Limestone, gray, dark, hard .....	29	582
Total depth .....		582

## Log No. 150

George Smith, No. 1, lessor. Beech Bottom Oil & Gas Co., No. 3, lessee. Location: On Kogar Creek, Clinton County, Ky. Commenced: Feb. 6, 1922. Completed: March 28, 1922. Drillers: Otha Dalton, Geo. Davison. Field Manager: Less Combest. Production: 5 bbls. estimated. Edge well.

## Strata.

Mississippian System.	Thickness	Depth.
Limestone, white and gravel .....	43	43
Limestone (fresh water) .....	37	80
Limestone, brown, sticky, sandy .....	10	90
Limestone, black (black sulphur water, gas) ..	10	100
Limestone, white and gray (set. 185 feet 8¼)	85	185
Limestone, white and gray .....	115	300
Limestone, black .....	35	335
Limestone, black, mixed with shale .....	5	340
Shale .....	10	350
Limestone rock, hard, gray .....	2	352
Limestone (Beaver "sand"), (oil) .....	8	360
Devonian System.		
Shale, black (Chattanooga) .....	35	395
Ordovician System.		
Limestone, blue and gray .....	280	675
Limestone, soft (gas) .....	15	690
Limestone, gray .....	60	750
Limestone, brown, sandy, sticky .....	15	765
Limestone, gray, mixed .....	75	840
Limestone, soft, mixed with shale, (Sunny- brook formations) .....	85	925
Shale, 1st, (pencil cave) .....	8	933
Limestone, soft (soapstone) .....	27	960
Shale, 2nd, (pencil cave), very soft, (set. 40 feet 6-5/8) .....	5	965
Limestone, grey .....	30	995
Limestone, brown, sandy, (good looking sand, no oil show) (Calciferous) .....	105	1,100
Limestone, blue, mixed .....	150	1,250
Limestone, blue .....	445	1,695
Cambro-Ordovician System.		
Sandstone, brown, mixed with limestone .....	33	1,728
Limestone, (oil show) .....	30	1,758
Sandstone, hard, close .....	7	1,765
Sandstone, soft, brown .....	5	1,770

Cambro-Ordovician System.		Thickness	Depth
Sandstone, (oil, high gravity, green) .....		10	1,780
Sandstone, dry, brown .....		5	1,785
Limestone .....		44	1,829
Limestone, dry, brown to gray .....		20	1,849
Limestone, sandy, dry, brown .....		41	1,890
Limestone, blue .....		10	1,900
Limestone, blue, sandy, hard .....		25	1,925
Limestone, brown, hard, sandy, (salt?) .....		9½	1,934½
Total depth .....			1,934½

Only pay of importance, 1770-1780.

Small showing in Beaver formation, 352.

Small showings in Trenton formation or Knox Dolomite, 1728-1758.

Well was completed without any fishing jobs, water troubles or caves.

Set 8¼ to 185 feet. Set 40 feet 6-5/8 at 965.

Beveled at both ends to cut off caves.

NOTE—The stratigraphic position of the 10 feet of oil "sand" above 1,780 is in dispute. By some it is claimed that the Trenton overlies the 1st Pencil Cave at 925 feet, which is undoubtedly the Bentonite of Pickett County, Tenn., wells. The record from 1,728 to 1,934½ is then Knox Dolomite (Cambro-Ordovician), showing 52 feet of oil "sand" with two pays. This well compares favorably with the record of the Cinda Sells, No. 1, Holbert Creek, near Wolfe River, Pickett County, near Fentress County line. Sfr. Tenn. Geol. Surv., Bull. No. 25, p. 57, 1921. Other authorities reject all of the above and claim this oil "sand" is lower Ordovician.

## CRITTENDEN COUNTY.

Production: Neither oil or gas to date. Producing Sands: None recognized to date.

### Log No. 151

O. C. & G. G. Cook, lessees. Location: ½ mile east of Marion P. O. Commenced: April 25, 1921. Driller: J. R. Butts. Casing: 290 feet of 6¼ in. Stratigraphic determinations by Stuart Weller, Ass't Geologist.

#### Strata.

Mississippian System.	Thickness	Depth
Clay, red, Cypress .....	7	7
Sandstone, white, Cypress .....	45	52
Mud, red, Paint Creek .....	10	62
Shale, blue, (1st water 70), Paint Creek ....	30	92
Limestone, dark, Paint Creek .....	4	96
Shale, gray, (2nd water 169), Paint Creek ..	73	169

## Mississippian System.

## Thickness Depth

Limestone, dark, Paint Creek .....	2	171
Shale, gray, Paint Creek .....	70	241
Sand, white, (Bethel) .....	47	288
Shale, gray, Renault .....	20	308
Limestone, black, Renault .....	4	312
Limestone, hard, sandy, Renault .....	38	350
Shale, blue, Renault .....	2	352
Limestone, gray, Renault .....	15	367
Limestone, gray, and shale, mixed, Renault ..	30	397
Limestone, blue, Renault .....	2	399
Limestone, light brown, (oil show 400), St. Genevieve .....	50	449
Sand, dark, St. Genevieve .....	2	451
Shale, blue, St. Genevieve .....	6	457
Limestone, gray, St. Genevieve .....	70	527
Limestone, dark, St. Genevieve .....	10	537
Limestone, gray, St. Genevieve .....	75	612
Limestone, gray, oolite specks, St. Genevieve	30	642
Flint, hard, (sea level), St. Louis .....	15	657
Limestone, gray, St. Louis .....	40	697
Flint, blue, St. Louis .....	30	727
Limestone, light brown, St. Louis .....	12	739
Limestone, gray, St. Louis .....	30	769
Chert, white & blue, very hard, St. Louis ....	33	802
Limestone, light brown, Spergen .....	15	817
Limestone, gray, (oolite), Spergen .....	40	857
Limestone, blue, Spergen .....	20	877
Limestone, dark, Warsaw passing down into Keokuk and possibly Burlington .....	8	885
Limestone, brown, Warsaw passing down into Keokuk and possibly Burlington .....	40	925
Limestone, gray, Warsaw passing down into Keokuk and possibly Burlington .....	8	933
Limestone, dark, Warsaw passing down into Keokuk and possibly Burlington .....	25	958
Limestone or shale, dark, Warsaw passing down into Keokuk and possibly Burling- ton .....	3	961
Sand, Warsaw passing down into Keokuk and possibly Burlington .....	5	966
Limestone, dark, Warsaw passing down into Keokuk and possibly Burlington .....	52	1,018
Limestone, very dark, Warsaw passing down into Keokuk and possibly Burlington ....	5	1,023

Mississippian System.	Thickness Depth	
Limestone, little lighter, Warsaw passing down into Keokuk and possibly Burlington ....	10	1,033
Limestone, still lighter, Warsaw passing down into Keokuk and possibly Burlington ....	7	1,040
Incomplete depth .....		1,040

NOTE—It is not possible in this record to determine the Renault-St. Genevieve contact. The Renault should be from 75 to 100 feet thick. The black shale (Devonian) should be expected beneath the lowest recorded limestones, at some depth.

### CUMBERLAND COUNTY.

Production: Oil and Gas. Producing Sands: Sunnybrook and Trenton (Ordovician).

#### Log No. 152

A. M. Fudge, No. 1, lessor. Location: near Burkesville. Completed: in 1903. Authority: The New Domain Oil & Gas Co.

Strata.

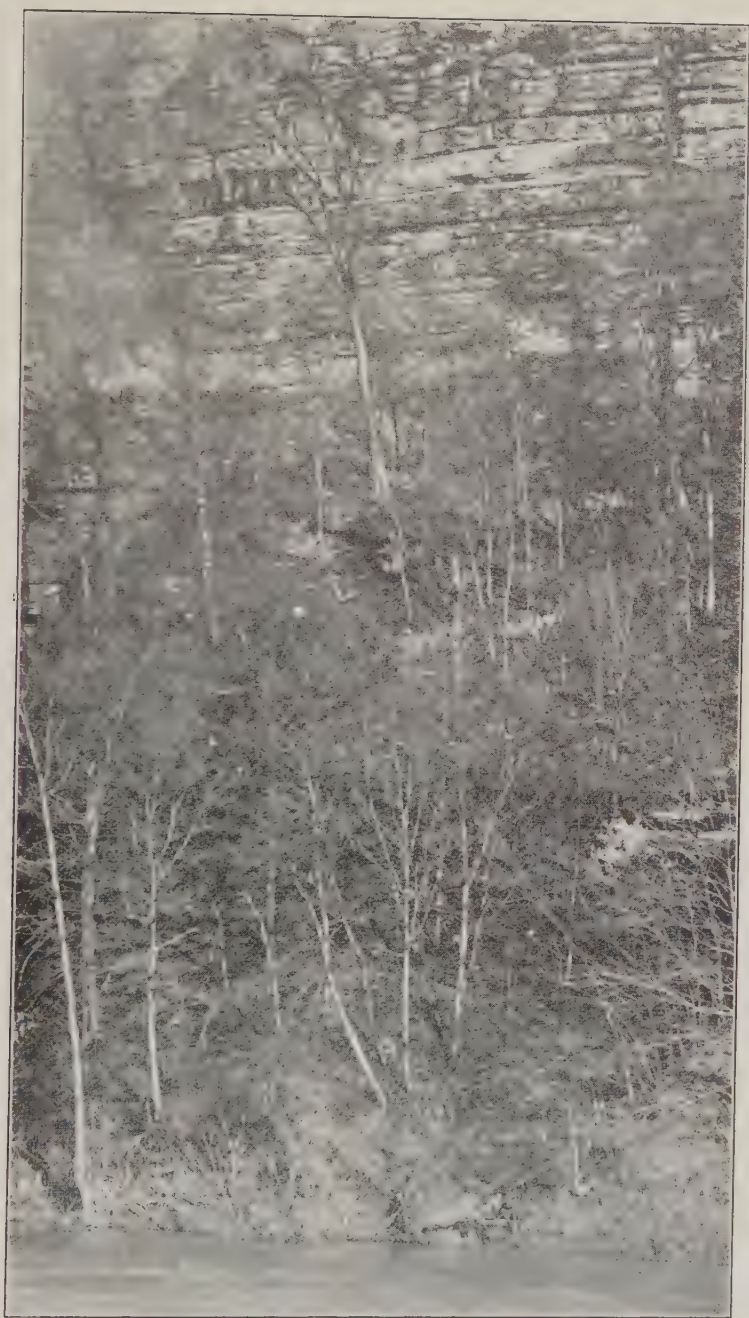
Ordovician System.	Thickness Depth	
Limestone, blue, black, hard, close .....	200	200
Limestone, blue, gray, soft (oil show 452) ..	255	455
Limestone, blue, black, soft, open .....	115	570
Limestone, blue, gray, soft, open .....	430	1,000
Total depth .....		1,000
Gas at 150, 285 and 340 feet.		

#### Log No. 153

W. M. Bryant, No. 1, lessor. Location: Eighth Precinct. Completed: September 2, 1903. Authority: The New Domain Oil & Gas Company.

Strata.

Ordovician System.	Thickness Depth	
Limestone, white, hard, close .....	50	50
Limestone, blue, soft, loose .....	200	250
Limestone, gray, soft, loose .....	50	300
Limestone, blue, soft, open .....	75	375
Limestone, gray, soft, close .....	50	425
Limestone, gray, hard, close .....	125	550
Limestone, dark gray, soft, loose .....	50	600
Limestone, white, hard, close .....	100	700
Limestone, gray, hard, close .....	30	730
Limestone, dark gray, soft, loose .....	100	830
Limestone, dark gray, hard, loose .....	50	880
Limestone, dark, soft, loose .....	75	955
Limestone, dark, hard, open .....	46	1,001
Total depth .....		1,001
A little gas at 225 feet.		



#### THE KENTUCKY "TRENTON."

The view shows the Kentucky River cliffs of Garrard County just above the Mouth of the Dix River. The section from the cave (left) up, is the Trenton which is productive in Southern Kentucky.

**Log No. 154**

W. R. Neeley, No. 2, lessor. Completed: October 6, 1904. Production: 15 bbls. oil per day. Authority: The New Domain Oil & Gas Company.

## Strata.

Ordovician System.	Thickness	Depth
Limestone, dark gray, hard .....	121	121
Limestone, gray, hard .....	60	181
Shale, blue, hard, soft .....	10	191
Limestone, brown, hard .....	10	201
Shale, blue, hard, soft .....	40	241
Limestone, gray, loose .....	100	341
Shale, blue, hard, soft .....	15	356
Limestone, brown, soft .....	269	625
Limestone, dark gray, hard .....	105	730
Limestone, gray, loose .....	20	750
Limestone, dark gray, loose .....	33	783
Total depth .....		783

**Log No. 155**

Cloyd Heirs, No. 2, lessors. Completed: May 5, 1903. Production: Dry, following shot. Authority: The New Domain Oil & Gas Company.

## Strata.

Ordovician System.	Thickness	Depth
Limestone .....	250	250
Limestone, blue, medium .....	100	350
Sand, gray, hard .....	125	475
Limestone, soft .....	33	508
Shale, white, hard, soft .....	2	510
Limestone, white, soft, (oil show 522) .....	35	545
Limestone, hard, soft .....	100	645
Limestone, white, soft .....	55	700
Limestone "sand," hard .....	150	850
Shale, white, hard .....	30	880
Limestone, gray, soft .....	10	890
Limestone, dark, hard .....	35	925
Limestone, white, hard .....	25	950
Total depth .....		950



**Log No. 156**

Radford, No. 1, lessor. Location: Brush Creek Pool. Casing head elevation: 550 feet, approx. Drilled about 1867. Structural Location: Tip of pronounced dome on which are also located the Glidewell, Melton and Parrish wells. Authority: L. Beckner.

## Strata.

Ordovician System.	Thickness	Depth
Soil, .....	15	15
Limestone, (salt water & gas 190) .....	175	190
Limestone, (uncontrollable gas 290) .....	100	290
Total depth .....		290

NOTE—Large and uncontrollable gas was struck at “about 290 feet, which blew Mr. Classon, the driller, off his stool and 30 feet away into a gully.” The well was allowed to blow open for a week or more, when it was finally abandoned with the tools in the hole. Statement of Jacob Radford, an eyewitness, July, 1920.

**Log No. 157.**

Glidewell, No. 1, lessor. Location: Across the Cumberland River from Bakerton P. O., in Brush Creek Pool. Drilled: about 1867. Production: a good oil show.

**Log No. 158**

Glidewell, No. 2, lessor. Location: Just across the branch from Glidewell, No. 1. Drilled: about 1892. Production: oil at 390 feet depth.

NOTE—Fragmentary information upon the further development of this tract is as follows: Glidewell, No. 3, was drilled about 1906, complete log and depth unknown. Glidewell, Nos. 4 and 5, were drilled subsequently, and the record is said to have been the same as Glidewell No. 3. The Wes Melton Nos. 1 and 2 had a similar record to Glidewell Nos. 3, 4 and 5. The Parrish wells Nos. 1, 2, 3, and 4 were also similar to the Glidewell records it is said, but the records have not been secured. All of these wells started in the Maysville (Ordovician) and struck oil at 380 to 420 feet. Casing head elevation from about 540 feet A. T., and all in Brush Creek Pool.

## DAVIESS COUNTY.

Production: Small oil and gas. Producing Sands: Unnamed of Alleghany and Pottsville age (Pennsylvanian).

## Log No. 159

England, No. 1, lessor. Location: Across the road, east of the Eaglehard wells about 800 feet, between Calhoun and Owensboro. Operators: Henry O'Hara, St. Louis; B. A. Kinney, Penn.; Luckett and Boggett, St. Louis. Authority: J. G. Stuart.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay, green, and chert .....	25	25
Sandstone, soft .....	5	30
Limestone and shale .....	10	40
Shale, black, and coal .....	5	45
Shale, blue, hard .....	10	55
Shale, gray, hard .....	35	90
Shale, black, coal .....	4	94
Fire clay .....	1	95
Broken limestone and shale .....	16	111
Flint rock, gray .....	5	116
Limestone, broken .....	10	126
Shale, blue .....	20	146
Shale, black, coal .....	5	151
Fire clay .....	1	152
Limestone, blue .....	10	162
Shale, limy, (water) .....	5	167
Shale, blue, carbonaceous .....	17	184
Shale, black .....	5	189
Shale, limy .....	15	204
Sandstone .....	26	230
Total depth .....		230
Two sands, or rather, sand with parting.		
Top sand good show; 2nd sand much better.		

## Log No. 160

Roy Haggerman, No. 1, lessor. Location: 3 miles southwest of Panther. Operator: Elmer Little, Gunther Petrie, and others. Authority: C. Shadwick, driller.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay, yellow .....	4	4
Sandstone, brown .....	15	19

Pennsylvanian System.	Thickness	Depth
Shale, soft .....	1	20
Sandstone, blue .....	10	30
Shale, blue, sandy .....	30	60
Shale, blue, soft .....	10	70
Shale, black, coal .....	5	75
Fire clay .....	3	78
Limestone, blue .....	2	80
Limestone, gray, and sand .....	20	100
Shale, blue .....	10	110
Shale, blue .....	45	155
Shale, black .....	5	160
Fire, clay .....	5	165
Shale, brown .....	5	170
Shale, blue, sandy .....	15	185
Shale, blue, sandy .....	10	195
Shale, black .....	6	201
Fire, clay .....	3	204
Hard rock .....	1	205
Sandstone, (oil) .....	3	208
Shale, blue .....	7	215
Shale, gray .....	10	225
Sand, white, (oil) .....	20	245
Shale, blue, hard .....	10	255
Shale, black, and coal .....	14	269
Fire clay .....	1	270
Shale, gray .....	20	290
Shale, soft, dry .....	5	295
Total depth .....		295

**Log No. 161**

School House Well, 3 miles northwest of Panther.

Strata.

Pennsylvanian System.	Thickness	Depth
Clay, yellow .....	20	20
Sandstone .....	6	26
Shale, black .....	5	31
Fire clay .....	3	34
Limestone, not hard .....	4	38
Sand and limestone .....	25	63
Shale, dark blue .....	24	87
Shale, blue, soft .....	30	117
Shale .....	5	122
Fire clay .....	6	128
Total depth .....		128

**Log No. 162**

R. A. Alvey, No. 1, lessor. Location:  $1\frac{1}{2}$  Miles southeast of Panther, on Bushy Fork. S. L. elevation 415' (about). Well No. 1 is located about 300 ft. east of Well No. 2. Authority: Turner Burns, Mgr. Panther Creek Oil Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sandstone .....	6	6
Shale, sandy .....	10	16
Shale, brown and blue .....	65	81
Shale .....	2	83
Fire clay .....	2	85
Limestone and shale .....	20	105
Sandstone, (oil) (show gas) .....	12	117
Total depth .....		117

**Log No. 163**

R. A. Alvey, No 2, lessor. Panther Creek Oil Co., Owensboro, Ky., lessee. Location: 300 ft. from No. 1. Log by driller, C. Shadwick.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay .....	21	21
Sandstone .....	4	25
Shale .....	5	30
Shale, brown and blue (called by driller soap stone) .....	50	80
Shale, black .....	3	83
Fire clay .....	6	89
Limestone, broken, and shale, 113 .....	18	107
Oil sand 117 .....	13	120
Break, parting not identified by driller .....	2	122
Sandstone (oil), (gas at 127) .....	9	131
Shale, gray .....	18	149
Shale, soft .....	9	158
Shale, black .....	6	164
Fire clay .....	4	168
Shale, gray, sandy .....	24	192
Limestone, gray .....	3	195
Fire clay .....	3	198
Shale, blue, sandy .....	5	203
Sandstone and limestone shale .....	20	223
Shale, black, sandy .....	35	258
Incomplete depth .....		258

An incomplete log. This well was drilled somewhat deeper. Well left in condition to be shot. Authority: J. G. Stuart.

**Log No. 164**

Eiglehardt, No. 1, lessor. Location: between Owensboro and Calhoun, 16 miles from Owensboro, 8 miles from Calhoun. Operators: B. A. Kinney, Oil & Gas Inspector for State of Indiana, Henry O'Hara. Luckett & Baggett, of St. Louis, Mo.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Clay, yellow .....	20	20
Shale, black .....	4	24
Fire clay .....	6	30
Shale, hard .....	20	50
Shale, blue .....	10	60
Shale, black .....	5	65
Shale, blue .....	5	70
Shale, blue, sandy .....	25	95
Shale, black, coal .....	4	99
Fire clay .....	1	100
Broken limestone shale .....	15	115
Limestone, blue, cherty .....	5	120
Broken limestone (gravel?) .....	5	125
Shale, blue .....	15	140
Shale, black .....	3	143
Fire clay .....	2	145
Limestone, blue .....	5	150
Shale, gray, sandy .....	25	175
Shale, blue, limy .....	15	190
Shale, broken, limy .....	7	197
Sand .....	8	205
Sand (oil) .....	7	212
Total depth .....		212

These wells had from 16 to 26 feet good sand according to the operators and the driller. Three wells on this farm. All logs run alike. All promise pay oil. Authority: J. G. Stuart.

**EDMONSON COUNTY.**

Production: Oil and Gas. Producing Sands: Pottsville (Pennsylvanian); "Shallow" of Warren County (Mississippian); Corniferous (Devonian); "Deep" (Silurian).

**Log No. 164-A**

Location: Branch of Dismal Creek. Production: Dry. (Oil shows only.) Authority: J. Owen Bryant.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Clay .....	8	8
Sand, black .....	25	33

Mississippian System.	Thickness	Depth
Shale .....	25	58
Limestone .....	9	67
Shale .....	15	82
Limestone .....	34	116
Shale .....	8	124
Limestone .....	42	166
Shale .....	17	183
Limestone .....	20	203
Sand, black .....	15	218
Sand and shale .....	42	260
Shale .....	20	280
Limestone, gray .....	524	804
Total depth .....		804

NOTE—This well started just below the lowest coal.

### ELLIOTT COUNTY.\*

Production: Oil and Gas. Producing Sands: Wier and Berea  
(Mississippian).

#### Log No. 165

Ad. Johnson, No. 1, lessor. Elcaro Oil & Gas Co. (No. 2), lessee.  
Location: southeast of Lawton, near the head of Big Sinking Creek.  
Commenced: December 4, 1920. Completed: January 15, 1921. In-  
itial production: .... bbls. oil. Authority: C. E. Bales.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	14	14
Sandstone .....	45	59
Mississippian System.		
Shale (red rock) and fire clay .....	12	71
Limestone (Big Lime) .....	91	162
Limestone, sandy .....	20	182
Shale, blue .....	73	255
Sandstone, gray (little show of oil) .....	18	273
Shale, blue .....	202	475
Sandstone, dark blue (strong gas pressure) ..	10	485
Shale, blue .....	140	625
Sandstone (Wier), (show of oil) .....	27	652
Shale, brown (Sunbury) .....	15	667
Sandstone (Berea), (little show of oil) .....	31	698

\*For additional records Elliott County, see "Economic Papers on Kentucky Geology"—W. R. Jillson, Ky. Geological Survey, Series VI, Vol. II, 1921.

Mississippian System.		Thickness	Depth
Shale, gray .....		5	703
Sandstone, gray .....		14	717
Shale, green .....		4	721
Sandstone .....		8	729
Shale, green, sandy .....		54	783
Devonian System.			
Shale, black (Chattanooga) .....		28	811
Total depth .....			811

**Log No. 166**

Dr. Wallace Brown, No. 1, lessor. Washington Oil Company, lessee. Location: One-half mile southeast of Ordinary P. O. Elevation: 922 feet. Authority: C. T. Dabney, Winchester, Ky.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil .....		4	4
Sand .....		158	162
Mississippian System.			
Limestone .....		2	164
Shale, white, (fire clay, muck, water on top) .....		3	167
Limestone .....		86	253
Shale, white .....		2	255
Limestone .....		30	285
Shale, black .....		73	358
Shale (Waverly), white .....		238	596
Shale, dark .....		9	605
Shale, white, and shells .....		12	617
Shale, black .....		45	662
Sandy shells .....		37	699
Sand and shale .....		20	719
Shale, black (Sunbury) .....		19	738
Sandstone (Berea grit) .....		92	830
Shale, white .....		24	854
Devonian System.			
Shale, brown, Ohio shale .....		60	914
Shale, white (gray), Ohio shale .....		16	930
Shale, brown, Ohio shale .....		176	1,106
Fire clay .....		19	1,125
Shale, white .....		2	1,127
Limestone, brown (Corniferous) .....		43	1,170
Silurian System.			
Shale, white, and red rock .....		30	1,200
Limestone, brown, dolomitie .....		9	1,209



Silurian System.	Thickness	Depth
Limestone .....	267	1,476
Shale, white .....	38	1,514
Shale, limy, red .....	80	1,594
Shale, white and gray .....	87	1,681
Limestone, red (Clinton) .....	19	1,700
Ordovician System.		
Shale, gray, and shells (very dark, almost black) .....	35	1,735
Shale, blue .....	40	1,775
Shale and shells .....	48	1,823
Shale, white .....	74	1,897
Limestone shells .....	20	1,917
Shale, white .....	13	1,930
Limestone, black .....	12	1,942
Shale and shells .....	66	2,008
Shale, white, and shells .....	16	2,024
Shale, white .....	30	2,054
Incomplete depth .....		2,054

Steel tape used here. Cannot locate error. 2,000 to 2,463 Trenton lime. Bottom of hole puffs of gas toward bottom of hole.

## ESTILL COUNTY.

Production: Oil and Gas. Producing Sand: Corniferous (Devonian).

### Log No. 167

Isom Ballard, No. 12, lessor. Commenced: August 27, 1919. Completed: October 13, 1919. Authority: The Superior Oil Corporation.

#### Strata.

Mississippian System.	Thickness	Depth
Shale, blue, soft .....	218	218
Devonian System.		
Shale, black, hard (Chattanooga) .....	96	314
Shale, red, hard .....	12	326
Fire clay, soft .....	7	333
Limestone "sand," hard (Corniferous) .....	8	341
Total depth .....		341

**Log No. 168**

Isom Ballard, No. 13, lessor. Authority: The Superior Oil Corporation.

## Strata.

Mississippian System.	Thickness	Depth
Soil, black, soft .....	20	20
Shale, blue, soft .....	178	198
Clay, blue, soft .....	77	275

## Devonian System.

Shale, black, hard (Chattanooga) .....	96	371
Shale, red, hard .....	12	383
Fire clay, blue, soft .....	7	390
Limestone "sand," gray, hard (Corniferous)	7½	397½
Total depth .....		397½

**Log No. 169**

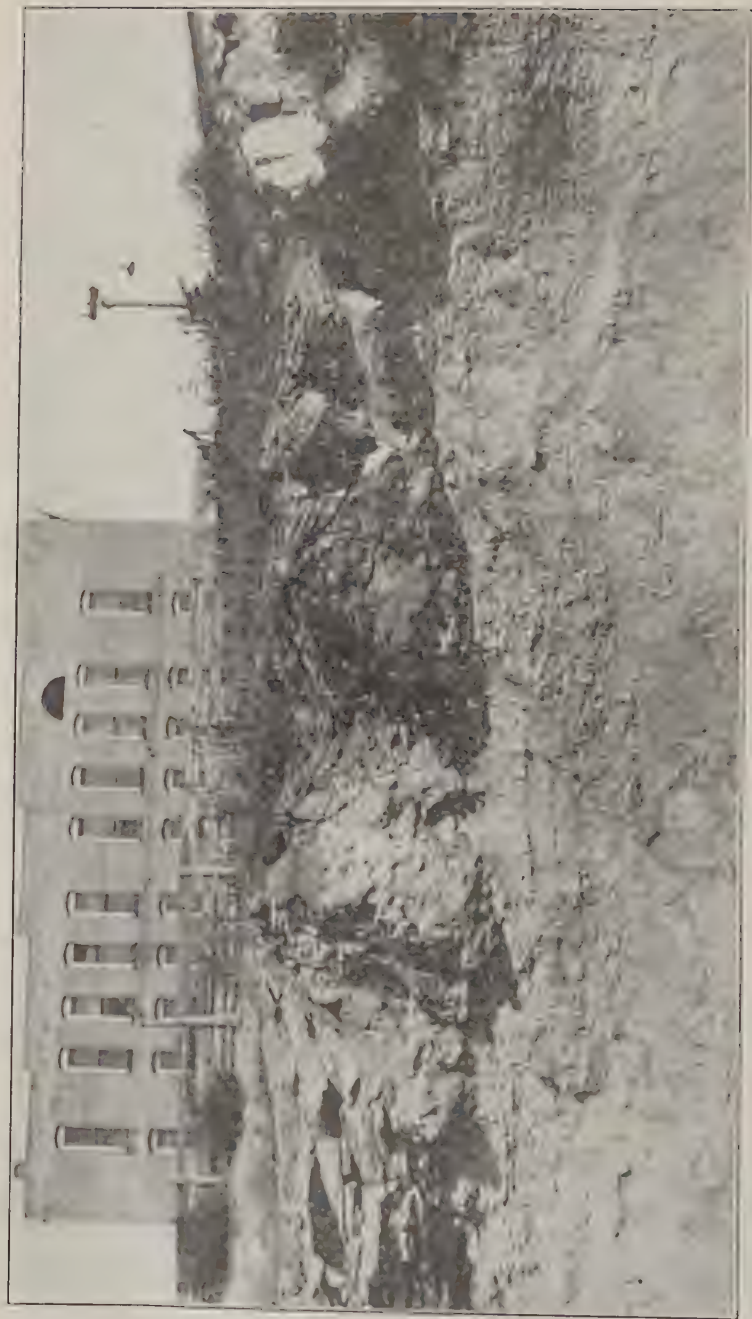
Isom Ballard, No. 14, lessor. Commenced: November 17, 1919.  
Completed: December 8, 1919. Authority: The Superior Oil Corporation.

## Strata.

Mississippian System.	Thickness	Depth
Soil yellow, black, soft .....	40	40
Shale, blue, soft .....	208	248
Clay, blue, soft .....	78	326

## Devonian System.

Shale, black, soft (Chattanooga) .....	96	422
Shale, red, soft .....	12	434
Fire clay, white, yellow, soft .....	7	441
Limestone "sand," brown, hard (Corniferous)		
(oil) .....	7	448
Total depth .....		448



AN UNCONFORMITY AT IRVINE, KY.  
This outcrop of the Onondaga Limestone and subjacent greenish gray shale below the River New Hotel, Irvine, Ky., shows cross bedding and suggests a local unconformity.

**Log No. 170**

Isom Ballard, No. 16, lessor. Completed: March 19, 1920. Production: Dry. Authority: The Superior Oil Corporation.

## Strata.

Mississippian System.	Thickness	Depth
Soil, yellow, soft .....	20	20
Limestone, white, hard .....	40	60
Shale, blue, soft .....	383	443
Devonian System.		
Shale, black, hard (Chattanooga) .....	96	539
Shale, red, soft .....	12	551
Fire clay, white, soft .....	10	561
Limestone "sand," white, hard (Corniferous) .....	2	563
Limestone "sand," brown, soft (Corniferous) .....	6	569
Limestone "sand," white, hard .....	2½	571½
Total depth .....		571½

**Log No. 171**

Thomas Henderson, No. 19, lessor. Commenced: May 27, 1920. Completed: June 9, 1920. Authority: The Superior Oil Corporation.

## Strata.

Mississippian System.	Thickness	Depth
Soil black, soft .....	11	11
Shale, blue, soft .....	250	261
Devonian System.		
Shale, black, hard .....	125	386
Fire clay, yellow, soft .....	10½	396½
Limestone (cap rock), black, hard .....	1	397½
Limestone, oil "sand," brown, hard (Corniferous) .....	8	405½
Total depth .....		405½

**Log No. 172**

Thomas Tipton, No. 30, lessor. Commenced: September 25, 1919. Completed: November 25, 1919. Producing oil December 9, 1919. Authority: The Superior Oil Corporation.

## Strata.

Mississippian System.	Thickness	Depth
Clay, yellow, sandy, soft .....	55	55
Limestone, white, hard .....	65	120
Shale, blue, soft .....	130	250
Shale, blue, soft, and mud .....	350	600
Shale (Red Rock), soft .....	10	610
Clay, blue, soft .....	18	628

Devonian System.	Thickness	Depth
Shale, black, soft (Chattanooga) .....	110	738
Fire clay, white, yellow, soft .....	11	749
Limestone "sand," soft, (Corniferous) .....	3½	752½
Limestone "sand," hard, (Corniferous) .....	3½	756
Limestone "sand," soft, (Corniferous) .....	3½	759½
Limestone "sand" broken, (Corniferous) ..	2½	762
Total depth .....		762

**Log No. 173**

Grant Shoemaker, No. 2, lessor. Commenced: September 21, 1919. Completed: January 25, 1920. Production: Dry; casing pulled, well plugged. Authority: The Ohio Oil Co.

## Strata.

Mississippian System.	Thickness	Depth
Soil red, soft .....	20	20
Sandstone, red, medium .....	180	200
Limestone, white, hard .....	140	340
Shale, blue, hard, medium .....	450	790
Shale, hard, pink, soft .....	15	805
Shale, hard, white, soft .....	25	830

## Devonian System.

Shale, brown, medium (Chattanooga) .....	116	946
Fire clay, white, soft .....	21	967
Limestone "sand," hard, dark, coarse (little oil) .....	4	971
Limestone "sand," hard, light .....	6	977
Total depth .....		977

NOTE—The last 10 feet of the record is in the Onondaga limestone (Corniferous "sand").

**Log No. 174**

G. R. Srac, No. 2, lessor. Commenced: October 20, 1919. Completed: January 31, 1920. Production: Dry. Authority: The Ohio Oil Co.

## Strata.

Mississippian System.	Thickness	Depth
Soil, red, soft .....	20	20
Sandstone, red, soft .....	80	100
Limestone, white, hard .....	93	193

Mississippian System.		Thickness	Depth
Shale, blue, soft .....		460	653
Fire clay, white, soft .....		25	678
Shale (Red Rock), soft .....		15	693
Devonian System.			
Shale, black, soft (Chattanooga) .....		147	840
Fire clay, white, soft .....		14	854
Limestone "sand," hard, dark, fine .....		2	856
Limestone "sand," gray, soft, coarser, (little oil) .....		2	858
Limestone "sand," hard, white, fine, (salt water) .....		2	860
Total depth .....			860

**Log No. 175**

William McIntosh, No. 1, lessor. Commenced: October 1, 1915.  
Completed: October 5, 1915. Production: 10 to 15 bbls. oil. Authority: The Wood Oil Company.

## Strata.

Mississippian & Devonian Systems.		Thickness	Depth
To top of Irvine Sand .....		218	218
Limestone (Irvine "sand") .....		19	237
Total depth .....			237

A lead plug was put in this well on April 18, 1917.

**Log No. 176**

William McIntosh, No. 2, lessor. Commenced: January 3, 1916.  
Completed: January 7, 1916. Production: 4 bbls. oil. Authority: The Wood Oil Company.

## Strata.

Mississippian & Devonian Systems.		Thickness	Depth
Limestone and shale .....		306	306
Limestone (Irvine "sand") .....		12	318
Total depth .....			318

Best pay oil from 310 to 314 feet. No gas.

**Log No. 177**

Dan McCoy, No. 5, lessor. Completed: June 13, 1917. Production: 5 bbls. oil. Authority: The Wood Oil Company.

## Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Sand and shale .....	615	615
Limestone "sand," blue, hard .....	1	616
Limestone "sand," blue, (slight show of oil) ..	12	628
Limestone "sand," blue, muddy (no pay) ..	16	644
Limestone "sand," brown and white (no pay) ..	7	651
Shale, soft .....	3	654
Total depth .....		654

**Log No. 178**

Dan McCoy, No. 4, lessor. Commenced: May 30, 1917. Completed: June 13, 1917. Production: Dry. Authority: The Wood Oil Company.

## Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Limestone and shale .....	730	730
Limestone "sand," fine, dark, (salt water 200) ..	2	732
Limestone "sand," dark .....	23	755
Limestone "sand," coarse, dark .....	5	760
Limestone "sand," lighter .....	4	764
Silurian System.		
Limestone "sand," very coarse, gray-brown and soft .....	9	773
Limestone "sand," blue and gray mixed ....	8	781
Limestone "sand," light brown (smell of oil) ..	27	808
Shale, very soft .....	3	811
Total depth .....		811

**Log No. 179**

George Lile, No. 2, lessor. Commenced: July 31, 1917. Completed: August 17, 1917. Production: Dry. Authority: The Wood Oil Company.

## Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Limestone and shale .....	797	797
Limestone (Irvine "sand") .....	38	835
Total depth .....		835



**Log No. 180**

George Lile, No. 1, lessor. Commenced: November 13, 1916.  
Completed: December 5, 1916. Abandoned: December 7, 1916. Authority: The Wood Oil Company.

Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Limestone and shale .....	759	759
Limestone (Irvine "sand"), hard, light brown	1	760
Limestone. (oil show 900) .....	511	1,271
Total depth .....		1,271
Stopped drilling in blue limestone.		

**Log No. 181**

Elizabeth Gibson, No. 1, lessor. Commenced: July 17, 1916.  
Completed: August 2, 1916. Production: 30 bbls. oil. Authority: The Wood Oil Company.

Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Limestone and shale .....	729	729
Limestone (Irvine "sand") .....	20	749
Limestone, blue, hard .....	3	752
Total depth .....		752

**Log No. 182**

Elizabeth Gibson, No. 2, lessor. Commenced: August 5, 1916.  
Completed: August 16, 1916. Production: 20 bbls. oil. Authority: The Wood Oil Company.

Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Limestone and shale .....	730	730
Limestone (Irvine "sand") .....	23	753
Total depth .....		753

**Log No. 183**

Elizabeth Gibson, No. 3, lessor. Commenced: August 19, 1916.  
Completed: September 9, 1916. Production: 25 bbls. Authority: The Wood Oil Company.

Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Limestone and shale .....	785	785
Limestone (Irvine "sand") .....	19	804
Total depth .....		804

**Log No. 184**

Elizabeth Gibson, No. 4, lessor. Commenced: September 13, 1916.  
Completed: September 26, 1916. Production: 25 bbls. oil. Authority:  
The Wood Oil Company.

## Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Limestone and shale .....	732	732
Limestone (Irvine "sand") .....	16	748
Total depth .....		748

Remarks: The sand was all fairly good.

**Log No. 185**

E. Gibson, No. 5, lessor. Commenced: September 29, 1916. Com-  
pleted: October 6, 1916. Production: 10 bbls. oil.

## Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Limestone and shale .....	739	739
Limestone (Irvine "sand") .....	14	753
Total depth .....		753

**Log No. 186**

Widow Garrett, No. 1, lessor. Commenced: April 20, 1916. Com-  
pleted: May 5, 1916. Production: 25 bbls. oil. Authority: The Wood  
Oil Company.

## Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Limestone and shale .....	782	782
Limestone (Irvine "sand") .....	20	802
Total depth .....		802

There was a showing of oil from 782 to 786 feet.

**Log No. 187**

Widow Garrett, No. 2, lessor. Commenced: May 6, 1916. Com-  
pleted: May 17, 1916. Production: 10 bbls. oil after shot. Authority:  
The Wood Oil Company.

## Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Soil, limestone and black shale .....	750	750
Limestone (Irvine "sand") .....	25	775
Total depth .....		775

Remarks: The sixth screw showed salt water.

**Log No. 188**

Widow J. M. Garrett, No. 4, lessor. Commenced: June 7, 1916.  
Completed: June 21, 1916. Production: 20 bbls. oil. Authority: The  
Wood Oil Company.

Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Limestone and shale .....	800	800
Limestone (Irvine "sand") .....	19	819
Total depth .....		819

Remarks: Show of oil at 802 feet. The sand was dark gray. 810  
to 815 feet change in sand to light gray.

**Log No. 189**

Mrs. J. M. Garrett, No. 3, lessor. Commenced: May 25, 1916.  
Completed: June 5, 1916. Authority: The Wood Oil Company.

Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Soil, sandy shale and black shale .....	747	747
Limestone (Irvine "sand") .....	9	756
Total depth .....		756

Remarks: Only a light show of oil in this well.

**Log No. 190**

Mrs. J. M. Garrett, No. 5, lessor. Commenced: June 24, 1916.  
Completed: July 4, 1916. Production: 2 bbls. natural. Authority:  
The Wood Oil Company.

Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Sandstone and shale .....	803	803
Limestone (Irvine "sand") .....	34	837
Total depth .....		837

Remarks: Stopped drilling in gritty limestone formation.

**Log No. 191**

Mrs. J. M. Garrett, No. 6, lessor. Commenced: July 7, 1916.  
Completed: July 18, 1916. Production: 25 bbls. Authority: The  
Wood Oil Company.

Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Sandstone and shale .....	772	772
Limestone (Irvine "sand"), lower part blue ..	27	799
Total depth .....		799

**Log No. 192**

Mrs. J. M. Garrett, No. 7, lessor. Commenced: July 20, 1916.  
Completed: July 29, 1916. Production: 25 bbls. Authority: The Wood Oil Company.

## Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Sandstone and shale .....	728	728
Limestone (Irvine "sand") .....	29	757
Total depth .....		757

**Log No. 193**

Mrs. J. M. Garrett, No. 8, lessor. Commenced: August 1, 1916.  
Completed: August 18, 1916. Production: 20 bbls. Authority: The Wood Oil Company.

## Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Sandstone and shale .....	695	695
Limestone (Irvine "sand") .....	46	741
Total depth .....		741

Remarks: Stopped drilling in hard, bluish-gray sand, with no pay.

**Log No. 194**

Mrs. J. A. Garrett, No. 9, lessor. Completed: August 28, 1916.  
Production: 20 bbls. Authority: The Wood Oil Company.

## Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Sandstone and shale .....	715	715
Limestone (Irvine "sand") .....	29	744
Total depth .....		744

Remarks: The tenth and eleventh screws showed hard shale and mud.

**Log No. 195**

Mrs. J. A. Garrett, No. 10, lessor. Commenced: September 12, 1916.  
Completed: September 21, 1916. Production: 5 bbls. Authority: The Wood Oil Company.

## Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Sandstone and shale .....	598	598
Limestone (Irvine "sand") .....	48	646
Total depth .....		646

**Log No. 196**

Mrs. J. A. Garrett, No. 11, lessor. Commenced: September 11, 1916. Completed: September 21, 1916. Production: 20 bbls. Authority: The Wood Oil Company.

Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Sandstone and shale .....	715	715
Limestone (Irvine "sand") .....	43	758
Total depth .....		758

**Log No. 197**

Mrs. J. A. Garrett, No. 12, lessor. Commenced: September 25, 1916. Completed: October 3, 1916. Authority: The Wood Oil Company.

Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Sandstone and shale .....	594	594
Limestone (Irvine "sand"), (gas in top) ...	37	631
Total depth .....		631

**Log No. 198**

Mrs. J. A. Garrett, No. 13, lessor. Commenced: September 25, 1916. Completed: October 3, 1916. Production: 15 bbls. Authority: The Wood Oil Company.

Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Sandstone and shale .....	766	766
Limestone (Irvine "sand") .....	33	799
Total depth .....		799

**Log No. 199**

Mrs. J. A. Garrett, No. 14, lessor. Commenced: October 15, 1916. Completed: October 20, 1916. Production: 15 bbls. Authority: The Wood Oil Company

Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Sandstone and shale .....	493	493
Limestone (Irvine "sand") .....	42	535
Total depth .....		535

**Log No. 200**

Mrs. J. A. Garrett, No. 15, lessor. Commenced: October 4, 1916. Completed: October 18, 1916. Production: 25 bbls. Authority: The Wood Oil Company.

## Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Limestone, sandstone and shale .....	739	739
Limestone (Irvine "sand") .....	38	777
Total depth .....		777
Best pay from 742 to 746 feet and from 754 to 758 feet.		

**Log No. 201**

Joseph Fox, No. 1, lessor. Commenced: December 2, 1916. Completed: December 7, 1916. Authority: The Wood Oil Company.

## Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Soil sandy shale and black shale .....	635	635
Limestone (Irvine "sand"), white, hard (salt water) .....	29	664
Total depth .....		664
The hole filled up 150 feet with salt water.		

**Log No. 202**

B. Brinegar, No. 8, lessor. Commenced: June 17, 1916. Completed: June 22, 1916. Production: 15 bbls. oil. Authority: The Wood Oil Company.

## Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Soil, sandy shale and black shale .....	564	564
Limestone (Irvine "sand"), fine oil .....	9	573
Total depth .....		573

The first screw showed a little oil. The sand was dark. The second screw showed no increase in oil. The sand was gray. The third screw showed a little more oil. The sand was fine.

**Log No. 203**

B. Brinegar, No. 9, lessor. Commenced: June 24, 1916. Completed: June 30, 1916. Production: 15 bbls. Authority: The Wood Oil Company.

## Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Soil, sandy shale and black shale .....	558	558
Limestone (Irvine "sand"), gray .....	12	570
Total depth .....		570

**Log No. 204**

B. Brinegar, No. 1, lessor. Location: Irvine District. Commenced: March 1, 1916. Completed: March 13, 1916. Production: 15 bbls. Authority: The Wood Oil Company.

## Strata.

Devonian System.	Thickness	Depth
Soil and black shale (Chattanooga) .....	186	186
Limestone (Irvine "sand"), quite soft .....	12½	198½
Total depth .....		198½

**Log No. 205**

B. Brinegar, No. 2, lessor. Commenced: March 16, 1916. Completed: March 22, 1916. Authority: The Wood Oil Company.

## Strata.

Devonian System.	Thickness	Depth
Soil and black shale (Chattanooga) .....	211	211
Limestone (Irvine "sand") .....	21½	232½
Total depth .....		232½

Remarks: Showings of each screw were as follows:

- (1) Shelly, with a very light show in the bottom.
  - (2) A slight increase in oil.
  - (3) Blue and shelly, no increase in the oil.
  - (4) Filled 5 feet over the tools.
  - (5) Showed good looking sand, with fairly strong gas in the top, filled 30 feet of oil over the tools.
  - (6) Filled 75 feet of oil over the tools.
  - (7) Filled 90 feet of oil over the tools.
- The best pay was between 225 and 232 feet.

**Log No. 206**

B. Brinegar, No. 3, lessor. Commenced: May 5, 1916. Completed: May 9, 1916. Production: 3 bbls. Authority: The Wood Oil Company.

## Strata.

Mississippian & Devonian Systems.	Thickness	Depth
Soil and black shale .....	313	313
Limestone (Irvine "sand") .....	15½	328½
Total depth .....		328½
Gas at 323 feet.		
Best pay from 313 to 323 feet.		



**Log No. 207**

B. Brinegar, No. 4, lessor. Commenced: May 9, 1916. Completed: May 15, 1916. Production: 15 bbls. Authority: The Wood Oil Company.

Strata.		
Mississippian & Devonian Systems.		
	Thickness	Depth
Soil and black shale .....	372	372
Limestone (Irvine "sand"), (oil & gas) ....	20½	392½
Total depth .....		392½

**Log No. 208**

B. Brinegar, No. 5, lessor. Commenced: May 18, 1916. Completed: May 24, 1916. Production: 15 bbls. Well abandoned and plugged Nov. 4, 1917. Authority: The Wood Oil Company.

Strata.		
Mississippian & Devonian Systems.		
	Thickness	Depth
Soil, sandy shale and black shale .....	568	568
Limestone (Irvine "sand") .....	20	588
Total depth .....		588

**Log No. 209**

B. Brinegar, No. 6, lessor. Commenced: May 26, 1916. Completed: May 31, 1916. Production: 20 bbls. Authority: The Wood Oil Company.

Strata.		
Mississippian & Devonian Systems.		
	Thickness	Depth
Soil, sandy shale and black shale .....	564	564
Limestone (Irvine "sand"), (oil) .....	16	580
Total depth .....		580

**Log No. 210**

B. Brinegar, No. 7, lessor. Commenced: June 2, 1916. Completed: June 16, 1916. Production: 15 bbls. Authority: The Wood Oil Company.

Strata.		
Mississippian & Devonian Systems.		
	Thickness	Depth
Soil, sandy shale and black shale .....	561	561
Limestone (Irvine "sand," (oil and gas) ....	14	575
Total depth .....		575

**Log No. 211**

Prewitt, Miller and Goff, No. 106, lessors. Completed: April 23, 1918. Authority: The Petroleum Exploration Company.

## Strata.

Pennsylvanian System.	Thickness	Depth
Shale and sandstone .....	75	75
Sandstone (Pottsville) .....	50	125
Limestone .....	10	135
Fire clay .....	15	150

## Mississippian System.

Limestone (Big Lime) .....	100	250
Sandstone and shale .....	475	725

## Devonian System.

Shale, black (Chattanooga) .....	142	867
Fire clay .....	15	882
Limestone "sand," (oil at 924, 936½ to 960) .....	96½	978½
Total depth .....		978½

**Log No. 212**

Prewitt, Miller and Goff, No. 108, lessors. Commenced: April 8, 1918. Completed: April 23, 1918. Authority: The Petroleum Exploration Company.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	15	15
Limestone (Big Lime) .....	87	102
Sandstone and shale .....	508	610

## Devonian System.

Shale, brown .....	130	740
Fire clay .....	15	755
Limestone (cap rock) at 755 .....	42	797
Limestone, 1st "sand" oil .....	13	810
Limestone, 2nd "sand" oil .....	22	832
Limestone, 3rd "sand" oil .....	10½	842½
Limestone .....	2½	845
Total depth .....		845

**Log No. 213**

Prewitt, Miller and Goff, No. 110, lessors. Authority: The Petroleum Exploration Company.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	10	10
Limestone (Big Lime) .....	55	65
Limestone, sandstone and shale .....	507	572
Devonian System.		
Shale, brown (Chattanooga) .....	135	707
Fire clay .....	15	722
Limestone (Cap rock), oil "sand" .....	88	810
Total depth .....		810

NOTE—The lower part of the last 88 feet of this record is undoubtedly Silurian.

**Log No. 214**

Prewitt, Miller and Goff, No. 111, lessors. Commenced: June 11, 1918. Completed: June 28, 1918. Authority: The Petroleum Exploration Company.

## Strata.

Pennsylvanian & Mississippian Systems.	Thickness	Depth
Sandstone and shale .....	225	225
Limestone (Big Lime) .....	90	315
Clay, blue .....	504	819
Devonian System.		
Shale, brown (Chattanooga) .....	135	954
Fire clay .....	15	969
Limestone (cap rock) and oil "sand" (oil at 1,019) .....	88	1,057
Total depth .....		1,057

Remarks: Bottom of oil pay, 1,039. The lower part of the last 88 feet of this record is undoubtedly Silurian.

**Log No. 215**

Prewitt, Miller and Goff, No. 116, lessors. Commenced: September 18, 1918. Completed: October 11, 1918. Production: 25 to 30 bbls. Authority: The Petroleum Exploration Company.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	4	4
Limestone (Big Lime) .....	81	85
Shale, brown .....	605	690

## Devonian System.

	Thickness	Depth
Shale, black (Chattanooga) .....	50	740
Fire clay .....	9	749
Limestone (cap rock) (Steel Line Measure- ment) .....	42	791
Limestone, 1st oil "sand" .....	2	793
Shale, hard, brown .....	4	797

## Silurian System.

Limestone, 2nd oil "sand" .....	3	800
Shale, hard .....	2	802
Limestone, 3rd oil "sand," (oil 400 feet high) ..	9	811
Limestone and shale, hard .....	22	833
Limestone, 4th oil "sand" .....	3	836
Limestone .....	2	838
Limestone .....	3	841
Total depth .....		841

## Log No. 216

Prewitt, Miller and Goff, No. 119, lessors. Commenced: February 28, 1919. Completed: March 26, 1919. Production: 10 bbls. oil. Authority: The Petroleum Exploration Company.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Soil .....	6	6
Sandstone (Pottsville) .....	39	45
Shale and sandstone .....	80	125

## Mississippian System.

Limestone (Little Lime) .....	15	140
Limestone (Big Lime) .....	115	255
Clay, blue .....	15	270
Shale, hard .....	215	485
Shale, hard, and shells .....	240	725

## Devonian System.

Shale, brown .....	135	860
Shale, hard .....	15	875
Limestone (cap rock) and "sand" .....	98	973
Total depth .....		973

Remarks: Oil at 915 to 938. The lower part of the last 98 feet of "sand" is Silurian limestone.

**Log No. 217**

Prewitt, Miller and Goff, No. 120, lessors. Commenced: December 19, 1918. Completed: January 18, 1919. Production: 3 to 4 bbls. oil. Authority: The Petroleum Exploration Company.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sandstone (Pottsville) .....	50	50
Shale, blue .....	45	95
Mississippian System.		
Limestone .....	125	220
Shale, blue .....	490	710
Devonian System.		
Shale, brown .....	150	860
Fire clay .....	12	872
Limestone "sand" .....	96	968
Total depth .....		968

Remarks Salt water at 885 and 935. Oil pay from 921 to 934. The lower part of the last 96 feet of this record is Silurian.

**Log No. 218**

Prewitt, Miller and Goff, No. 121, lessors. Commenced: March 29, 1919. Completed: April 16, 1919. Authority: The Petroleum Exploration Company.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sandstone and shale (Pottsville) .....	120	120
Mississippian System.		
Limestone (Little Lime), (water at 125) ....	30	150
Shale .....	15	165
Limestone (Big Lime) .....	100	265
Shale, hard, and shells .....	505	770
Devonian System.		
Shale, brown, hard .....	140	910
Limestone (cap rock) and "sand" .....	110	1,020
Total depth .....		1,020

Remarks: Salt water at 922. Oil pay, light from 958 to 978. The lower part of the last 110 feet of this record is Silurian.

**Log No. 219**

Prewitt, Miller and Goff, No. 125, lessors. Commenced: August 8, 1919. Completed: September 20, 1919. Production: 12½ bbls. per day. Authority: The Petroleum Exploration Company.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	8	8
Shale, hard .....	72	80
Mississippian System.		
Limestone (Little Lime) .....	20	100
Shale, hard .....	54	154
Limestone (Big Lime) .....	85	239
Shale, hard .....	189	428
Shale, brown .....	250	678
Shale, hard, light .....	37	715
Shale, red .....	15	730
Devonian System.		
Shale (Chattanooga) .....	145	875
Fire clay .....	17	892
Limestone (cap rock), (oil and gas 889) .....	7	899
Limestone "sand," (water 900, oil 935-950) ..	92	991
Total depth .....		991

NOTE—The lower part of the last 92 feet of this record is Silurian.

**Log No. 220**

Prewitt, Miller and Goff, No. 123, lessors. Commenced: March 14, 1919. Completed: April 3, 1919. Production: 10 bbls. after shot; 4 bbls. natural. Authority: The Petroleum Exploration Company.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	10	10
Sandstone and shale .....	210	220
Mississippian System.		
Limestone (Big Lime), (water at 210) .....	45	265
Shale, green .....	185	450
Shale, hard .....	350	800
Devonian System.		
Shale, brown (Chattanooga) .....	150	950
Fire clay .....	15	965
Limestone "sand," (water 988, oil 1,024-1,036) .....	114	1,079
Total depth .....		1,079

NOTE—The lower part of the last 114 feet of this record is Silurian.

**Log No. 221**

Prewitt, Miller and Goff, No. 127, lessors. Commenced: May 10, 1919. Completed: May 29, 1919. Production: 20 bbls. after first day. Authority: The Petroleum Exploration Company.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	4	4
Sandstone and shale .....	81	85
Sand (Pottsville) .....	40	125
Fire clay .....	10	135
Mississippian System.		
Limestone .....	80	215
Shale, brown .....	45	260
Limestone .....	10	270
Shale, brown .....	390	660
Shale, red .....	25	685
Shale, gray .....	20	705
Devonian System.		
Shale, brown .....	140	845
Shale, gray .....	23	868
Limestone (cap rock) and "sand" .....	99	967
Total depth .....		967

Remarks: Oil as gas, light show, at 886. Salt water, hole full, at 887. Oil pay from 924 to 949. The lower part of the last 99 feet of limestone in this well is Silurian.

**Log No. 222**

Prewitt, Miller and Goff, No. 128, lessors. Commenced: May 20, 1919. Completed: June 21, 1919. Production: 5 bbls. after first day. Authority: The Petroleum Exploration Company.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sandstone and shale .....	80	80
Mississippian System.		
Limestone (Big Lime) .....	86	166
Limestone, green .....	15	181
Shale, green, hard .....	67	248
Shale, brown .....	62	310



Mississippian System.		Thickness	Depth
Limestone and shells .....		5	315
Shale, black, hard .....		315	630
Pink rock .....		20	650
Shale, white, hard .....		15	665
Devonian System.			
Shale, brown (Chattanooga) .....		145	810
Fire clay .....		18	828
Limestone (cap rock) and "sand" 878 to 898 ..		107	935
Total depth .....			935

NOTE—The lower part of the last 107 feet of this record is in the Silurian.

### Log No. 223

J. F. West, No. 1, lessor. Location: Rock House Fork, 1½ miles N. E. Pitts P. O. Completed: Feb. 27, 1903. Authority: New Domain Oil & Gas Co

#### Strata.

Devonian System.		Thickness	Depth
Clay .....		21	21
Shale, hard, black (Chattanooga) .....		43	64
Limestone, gray, hard (Corniferous) .....		30	94
Total depth .....			94

### Log No. 224

J. F. West, No. 2, lessor. Location: Rock House Fork 1½ miles N. E. Pitts P. O. Completed: May 15, 1903. Production: Dry. Authority: New Domain Oil & Gas Co.

#### Strata.

Devonian System.		Thickness	Depth
Clay .....		45	45
Shale, black (Chattanooga) .....		24	69
Limestone, gray, hard (Corniferous) .....		25	94
Silurian System.			
Limestone, light gray, hard, Niagaran .....		36	130
Sandstone, light gray, soft, Niagaran .....		145	275
Limestone, gray, hard, Niagaran .....		30	305
Sandstone light, soft, Niagaran .....		10	315
Limestone, gray, hard, Niagaran .....		8	323
Limestone, red, hard, Niagaran .....		10	333
Ordovician System.			
Limestone bastard gray, hard .....		17	350
Limestone, bastard brown, hard .....		40	390
Limestone, bastard gray, hard .....		839	1,229
Total depth .....			1,229

**Log No. 225**

J. F. West, No. 3, lessor. Location: Rock House Fork,  $1\frac{1}{2}$  miles N. E. Pitts P. O. Completed: spring of 1903. Production: first day, estimated at 4 bbls. Authority: New Domain Oil & Gas Co.

## Strata.

Devonian System.	Thickness	Depth
Clay .....	14	14
Shale, black (Chattanooga) .....	49	63
Limestone, gray, hard (Corniferous), (salt water in last 2 feet) .....	20	83
Total depth .....		83

**Log No. 226**

J. F. West, No. 4, lessor. Location: Rock House Fork,  $1\frac{1}{2}$  miles N. E. Pitts P. O. Completed: May 23, 1903. Authority: New Domain Oil & Gas Co.

## Strata.

Devonian System.	Thickness	Depth
Clay .....	3	3
Shale, black (Chattanooga) .....	69	72
Limestone or Estill "sand," gray, hard .....	20	92
Total depth .....		92

**Log No. 227**

J. F. West, No. 5, lessor. Location: Rock House Fork,  $1\frac{1}{2}$  miles N. E. Pitts P. O. Completed: May 30, 1903. Very light show of oil, good and dry; salt water in the last foot of the sand. Authority: New Domain Oil & Gas Co.

## Strata.

Devonian System.	Thickness	Depth
Clay .....	25	25
Shale, black (Chattanooga) .....	50	75
Limestone, gray, hard (Corniferous) .....	18	93
Total depth .....		93

**Log No. 228**

J. F. West, No. 6, lessor. Location: Rock House Fork,  $1\frac{1}{2}$  miles N. E. Pitts P. O. Completed: Nov. 24, 1903. Estimated production: 1 bbl. the first day. Authority: New Domain Oil & Gas Co.

Strata.

Devonian System.	Thickness	Depth
Clay, yellow .....	45	45
Shale, black, (oil 62) .....	17	62
Limestone "sand" .....	13	75
Total depth .....		75

**Log No. 229**

J. F. West, No. 7, lessor. Location: Rock House Fork,  $1\frac{1}{2}$  miles N. E. Pitts P. O. Completed: Nov. 25, 1903. Estimated production:  $\frac{1}{2}$  bbl. the first day. Authority: New Domain Oil & Gas Co.

Strata.

Devonian System.	Thickness	Depth
Clay, yellow .....	19	19
Shale, black, (oil) .....	45	64
Limestone "sand" (Corniferous) .....	12	76
Total depth .....		76

**Log No. 230**

J. F. West, No. 8 lessor. Location: Rock House Fork,  $1\frac{1}{2}$  miles N. E. Pitts P. O. Completed: Nov. 27, 1903. Estimated production: 1 bbl. the first day. Authority: New Domain Oil & Gas Co.

Strata.

Devonian System.	Thickness	Depth
Clay, yellow .....	8	8
Shale, black (Chattanooga) .....	$63\frac{1}{2}$	$71\frac{1}{2}$
Limestone "sand" (Corniferous) .....	15	$86\frac{1}{2}$
Total depth .....		$86\frac{1}{2}$

**Log No. 231**

J. F. West, No. 9, lessor. Location: Rock House Fork  $1\frac{1}{2}$  miles N. E. Pitts P. O. Completed: Nov. 30, 1903. Production: much water. Authority: New Domain Oil & Gas Co.

Strata.

Devonian System.	Thickness	Depth
Clay, yellow .....	22	22
Shale, black (Chattanooga) .....	52	74
Limestone "sand" (Corniferous) .....	13	87
Total depth .....		87

**Log No. 232**

J. F. West, No. 10, lessor. Location: Rock House Fork,  $1\frac{1}{2}$  miles N. E. Pitts P. O. Completed: Spring of 1903. Estimated production: 1 bbl. the first day. Authority: New Domain Oil & Gas Co.

## Strata.

Devonian System.	Thickness	Depth
Clay, yellow .....	32	32
Shale black (Chattanooga) .....	13	45
Limestone "sand" (Corniferous), (oil 54) ...	16	61
Total depth .....		61

**Log No. 233**

C. P. Rogers, No. 1, lessor. Completed: Sept. 10, 1904. Production: The well was dry. Authority: New Domain Oil & Gas Co.

## Strata.

Mississippian System.	Thickness	Depth
Clay, yellow, soft .....	9	9
Sandstone, blue, soft .....	36	45
Shale, blue, soft .....	36	81

## Devonian System.

Shale, black, hard (Chattanooga) .....	113	194
Shale, white, soft .....	2	196
Limestone "sand" (Irvine), gray, hard .....	101	297
Shale, blue, soft .....	33	330

## Silurian System

Shale, pink, soft .....	60	390
Shale, blue, soft .....	50	440
Limestone, blue, hard .....	7	447
Shale, blue, soft .....	6	453
Shale, pink, soft .....	7	460
Shale, blue, soft .....	5	465
Limestone, blue, hard .....	5	470
Shale (red rock), hard .....	15	485
Shale, blue, soft .....	5	490
Limestone, blue, hard .....	40	530
Shale, blue, hard .....	14	544

## Ordovician System.

Limestone, blue, hard .....	63	607
Total depth .....		607

## Log No. 234

Burnside Tipton, No. 1, lessor. Completed: Aug. 23, 1904. Production: Dry. Authority: New Domain Oil & Gas Co.

## Strata.

Mississippian System.	Thickness	Depth
Clay, yellow, soft .....	15	15
Soapstone, blue, soft .....	45	60
Shale, blue, soft .....	56	116

## Devonian System.

Shale, black, hard (Chattanooga) .....	101	217
Shale, blue, soft .....	8	225
Limestone, gray, hard .....	8	233
Limestone, blue, hard .....	8	241

## Silurian System.

Limestone, gray, hard .....	67	308
Shale, blue, soft .....	20	328
Shale, pink, soft .....	28	356
Shale, blue, soft .....	78	434
Limestone, blue, hard .....	4	438
Shale, blue, soft .....	16	454

## Ordovician System.

Limestone, blue, hard .....	4	458
Shale, blue, hard .....	7	465
Shale (red rock), hard .....	3	468
Shale, blue, hard .....	6	474
Shale (red rock), blue, hard .....	3	477
Shale, blue, hard .....	11	488
Limestone, gray, hard .....	2	490
Shale, blue, soft .....	3	493
Shale (red rock), hard .....	6	499
Limestone, gray, hard .....	8	507
Limestone, blue, hard .....	19	526
Shale, blue, soft .....	14	540
Limestone, blue, hard .....	3	543
Shale, blue, soft .....	5	548
Limestone, blue, hard .....	137	685
Shale, blue soft .....	3	688
Limestone, blue, hard .....	23	711
Total depth .....		711

## FLOYD COUNTY.

Production: Oil and Gas. Producing Sands: Pottsville (Pennsylvanian);  
Maxton, Bradley, Big Injun, and Berea (Mississippian).

## Log No. 235

Frank D. Hopkins, No. 1, lessor. A. Fleming, et al., lessees. Location: Near mouth of Bull Creek, on the Big Sandy River, below Dwale P. O. Completed: June 8, 1920. Production: Gas from Maxton sand, 500,000 cu. feet with over 500 lbs. rock pressure. Authority: A. Fleming. King Drilling Co., by A. P. Brookover, Driller.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	12	12
Sand .....	40	52
Shale, blue .....	70	122
Coal .....	5	127
Sand .....	45	172
Shale .....	75	247
Sand, white .....	60	307
Shale, black .....	155	462
Salt sand (Beaver) .....	225	687
Shale, black .....	82	769
Bottom salt sand .....	20	789
Shale, black .....	29	818
Mississippian System.		
Sand (Maxton), 30 ft. oil and gas pay near top	90	908
Sandstone, red, show of oil .....	15	923
Limestone shells .....	50	973
Limestone (Little Lime) .....	15	988
Limestone (Big Lime) .....	140	1,128
Sandstone (Big Indian), red .....	12	1,140
Shale, white .....	110	1,250
Sand and limestone shells .....	203	1,453
Shale, brown .....	47	1,500
Sand (Wier), oil show in 82 ft. ....	90	1,590
Shale, brown .....	135	1,725
Sandstone (Berea), Rainbow .....	40	1,765
Devonian System.		
Shale, brown .....	155	1,920
Shale, white .....	30	1,950
Shale, brown .....	180	2,130

Devonian System.	Thickness	Depth
Shale, white .....	165	2,295
Shale, brown .....	23	2,318
Limestone (Corniferous "sand") 5½ ft. streak of oil show 7 ft. from top, 6 ft. of bottom show of oil and much gas .....	62	2,380
Sandy shale (black and white) .....	3	2,383
Total depth .....		2,383

**Log No. 236**

Isaac Bradley, No. 1, lessor. Yolanda Oil Company, lessee. Location: 1½ miles from Wayland, on Right Beaver Creek. Completed: November 27, 1916. Casing head: 961.5 A. T. Production: 50,000 cubic feet gas. Well abandoned. Authority: The Eastern Gulf Oil Company.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Soil and alluvium .....	20	20
Sandstone, white, hard .....	20	40
Shale, hard .....	5	45
Sandstone .....	7	52
Coal .....	5	57
Sandstone, (fresh water) .....	20	77
Shale, hard .....	5	82
Sandstone, white, hard .....	18	100
Shale, hard .....	10	110
Sandstone, white, hard .....	25	135
Shale, hard .....	19	154
Sandstone, (large fresh water) .....	18	172
Shale, hard .....	18	190
Sandstone .....	10	200
Shale, hard .....	15	215
Sandstone .....	20	235
Shale, hard .....	5	240
Sandstone .....	40	280
Shale, hard .....	30	310
Limestone, shaly, black .....	15	325
Shale, hard .....	40	365
Sandstone, (fresh water 370 to 380) .....	15	380
Shale, hard .....	15	395
Shale, calcareous, hard, black .....	25	420
Shale, hard, and shells .....	16	436
Sandstone .....	17	453
Shale hard .....	3	456
Sandstone .....	15	471



Pennsylvanian System.		Thickness	Depth
Shale, hard	.....	5	476
Sandstone	.....	20	496
Shale, hard	.....	5	501
Sandstone	.....	39	540
Shale, hard	.....	5	545
Shale, dark, hard	.....	10	555
Shale, hard, light colored	.....	10	565
Sandstone	.....	10	575
Shale, hard	.....	62	637
Sandstone	.....	15	652
Shale, hard	.....	10	662
Sandstone	.....	13	675
Shale, hard	.....	5	680
Sandstone, white, hard	.....	35	715
Shale, hard	.....	10	725
Sandstone, light colored	.....	10	735
Shale, hard	.....	5	740
Sandstone, (salt water at 900)	.....	195	935
Shale, black, hard	.....	10	945
Shale, hard	.....	10	955
Shale, hard, dark	.....	15	970
Shale, hard, light	.....	40	1,010
Sandstone	.....	55	1,065
Shale, hard, black	.....	2	1,067
Sandstone, white	.....	7	1,074
Shale, dark, hard	.....	12	1,086
Sandstone (Berea Sand), (gas 1086 to 1090 estimated 50,000 cu. ft. per 24 hours. Salt water flooded hole at 1172)	.....	171	1,257
Shale, hard	.....	14	1,271
Sandstone	.....	30	1,301
Shale, hard	.....	18	1,319
Mississippian System.			
Sandstone (Maxon), (salt water at 1463)	...	161	1,480
Shale, hard, black	.....	14	1,494
Sand shells and shale, hard	.....	12	1,506
Limestone, hard, black	.....	9	1,515
Shale, hard, black	.....	10	1,525
Limestone, gray	.....	15	1,540
Shale, hard, black	.....	14	1,554
Sandstone (Bradley), (oil and gas 1554 to 1559)	.....	29	1,583
Limestone, dark gray	.....	4½	1,587½
Limestone, white (Big Lime)	.....	166½	1,754
Shale, sandy and red (Big Injun)	.....	2	1,756

Mississippian System.		Thickness	Depth
Shale and sandstone (Big Injun) .....		249	2,005
Sandstone .....		40	2,045
Shale, brown .....		100	2,145
Devonian System.			
Shale, hard, black (Chattanooga) .....		155	2,300
Shale, and sand shells (Chattanooga) .....		3	2,303
Shale, hard, black (Chattanooga) .....		102½	2,405½
Total depth .....			2,405½

NOTE—The sandy phase is the middle of the Devonian (Chattanooga) black shale. In one well on Aker Branch of Left Beaver Creek in Floyd County this sandy shale produced gas, but it never has produced oil. The Corniferous was not reached by this well.

### Log No. 237

Station Well, lessor. Pennagrade Oil & Gas Co., lessee. Location: Maytown.

#### Strata.

Pennsylvanian System.		Thickness	Depth
Soil .....		55	55
Shale .....		75	130
Sandstone .....		80	210
Shale, black .....		215	425
Sandstone .....		60	485
Shale, black, (gas 525, gas and water 635....)		265	750
Shale, gray .....		38	788
Shale, blue .....		10	798
Sandstone .....		42	840
Mississippian System.			
Shale, red, sandy .....		54	894
Sandstone (Maxon) .....		55	949
Sandstone, (Water and gas 987) .....		41	990
Total depth .....			990

### Log No. 238

S. May, lessor. Pennagrade Oil & Gas Co., lessee. Location: Mouth of Wilson Creek. Completed: October 31, 1920.

#### Strata.

Pennsylvanian System.		Thickness	Depth
Soil .....		27	27
Shale .....		75	102
Sandstone .....		58	160
Shale, black .....		200	360

Pennsylvanian System.	Thickness	Depth
Sandstone .....	40	400
Sandstone, shaly .....	118	518
Sandstone, (540,400,000 cu. ft. gas) .....	232	750
Shale, black (salt water 600) .....	20	770
Shell, black (gas show 630) .....	38	808
Sandstone, (250,000 cu. ft. gas, 810) .....	44	852
Shale, blue, (gas pay) .....	15	867
Sandstone, (salt) .....	41	908
Total depth .....		908

This record is all in the Pottsville.

### Log No. 239

K. Moore, No. 1, lessor. Pennagrade Oil & Gas Co., lessee. Completed: October 16, 1920.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	65	65
Shale .....	95	160
Sandstone .....	40	200
Shale .....	10	210
Sandstone blue .....	20	230
Shale, (gas 300) .....	95	325
Shale .....	100	425
Sandstone, gray .....	20	445
Shale .....	10	455
Sandstone, blue .....	70	525
Sandstone, (gas 562) .....	70	595
Shell .....	5	600
Sandstone, (water 612) .....	155	755
Coal, (gas 876-906) .....	10	765
Sandstone .....	60	825
Shale and shell .....	43	868
Sandstone .....	38	906

#### Mississippian System.

Shale, broken (gas 926-966, 1,500,00 cu. ft.)	1	907
Sandstone (Maxon) .....	62	969
Total depth .....		969

## Log No. 240

S. May, No. 1, lessor. Pennagrade Oil & Gas Co., lessee. Location: Mouth of Wilson Creek. Completed: January, 1920.

## Strata.

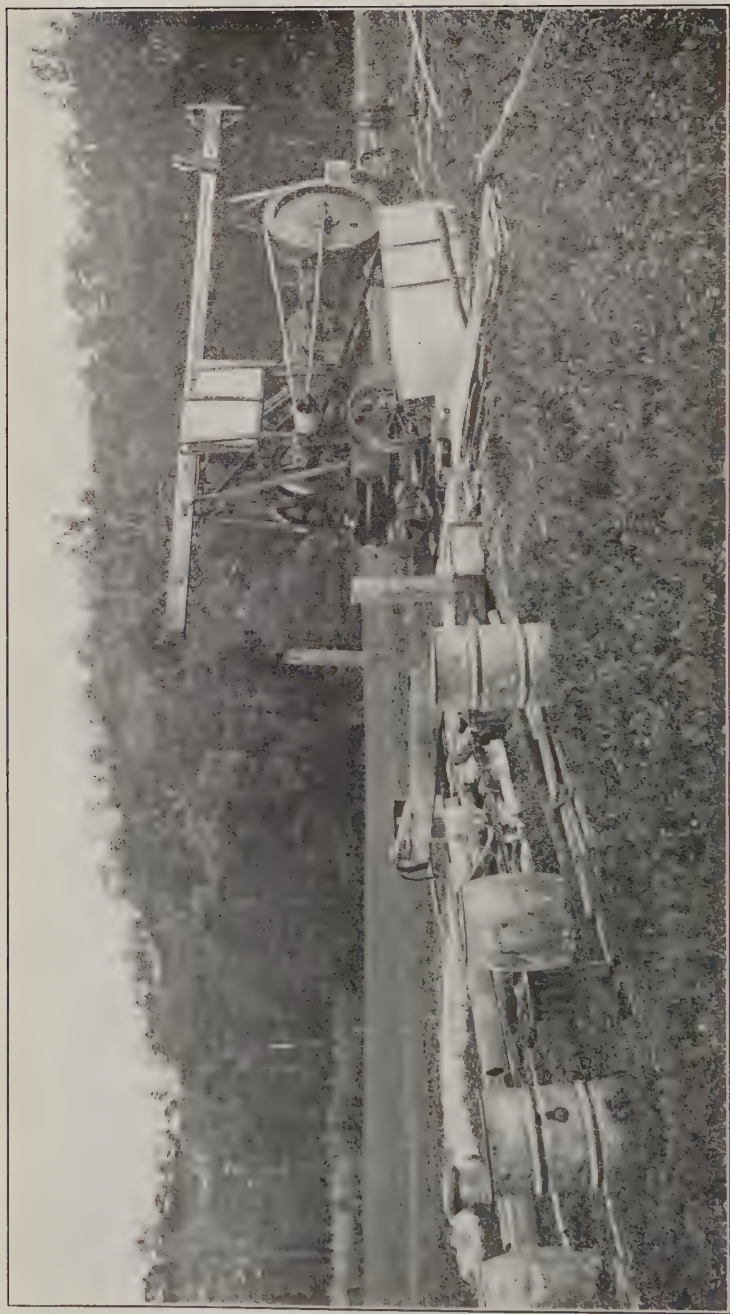
Pennsylvanian System.	Thickness	Depth
Soil .....	8	8
Limestone .....	90	98
Shale .....	60	158
Sandstone .....	18	176
Shale .....	90	266
Sandstone .....	60	326
Shale .....	50	376
Limestone .....	15	391
Sandstone .....	50	441
Shale .....	60	501
Shale, hard, shelly, (gas 550) .....	50	551
Sandstone .....	69	620
Shale .....	8	628
Sandstone, (salt water 735) .....	140	768
Sandstone, limy .....	30	798
Sandstone, (salt water 820) .....	62	860
Shale and shell, (gas and oil show 969) .....	104	964
Sandstone .....	48	1,012
Shale, (gas pay 1027-1072) .....	15	1,027
Mississippian System.		
Sandstone (Maxon) .....	45	1,072
Shell .....	118	1,190
Limestone and shale .....	15	1,205
Shale .....	12	1,217
Limestone (Little Lime) .....	23	1,240
Limestone (Big Lime), (water) .....	190	1,430
Total depth .....		1,430

## Log No. 241

H. May, No. 1, lessor. Pennagrade Oil & Gas Co., lessee. Location: Right Beaver Creek. Completed: January, 1921.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	5	5
Sandstone .....	20	25
Shale .....	14	39



A BLUE GRASS DUSTER.

This shallow, Louis C. Weber No. 1, well drilled in the Summer of 1920 on Benson Creek in Franklin County is illustrative of the most recent of the large number of unsuccessful attempts to secure "Trenton" oil in Central Kentucky. The log of the well appears on page 169.

Pennsylvanian System.		Thickness	Depth
Shale and shell .....		112	151
Sandstone .....		39	190
Shale .....		30	220
Sandstone .....		165	385
Sandstone .....		120	505
Shale, (salt water 603) .....		287	792
Shale, black .....		4	796
Shale and shell .....		14	810
Shale .....		8	818
Sandstone .....		2	820
Shale, brown .....		16	836
Sandstone .....		45	881
Mississippian System.			
Shale, sandy, red, Mauch Chunk .....		64	945
Shale, Mauch Chunk .....		30	975
Shale, sandy, red, Mauch Chunk .....		25	1,000
Shale, sandy, (oil show 1005) .....		12	1,012
Shale .....		18	1,030
Sandstone .....		45	1,075
Limestone .....		30	1,105
Total depth .....			1,105

**Log No. 242**

S. May, No. 1, lessor. Ky. Coke Co., lessee. Location: S. May Branch, 2000' from Wilson Creek.

**Strata.**

Pennsylvanian System.		Thickness	Depth
Soil .....		22	22
Sandstone .....		28	50
Shale .....		200	250
Sandstone .....		30	280
Shale, hard, shelly .....		20	300
Shale .....		56	356
Sandstone .....		14	370
Limestone .....		20	390
Shale .....		20	410
Sandstone .....		15	425
Shale .....		65	490
Sandstone .....		40	530
Shale .....		10	540
Sandstone .....		190	730

Pennsylvanian System.		Thickness	Depth
Shale .....		8	738
Sandstone .....		122	860
Limestone .....		25	885
Shale .....		10	895
Mississippian System.			
Sandstone (Maxon) .....		94	989
Shale .....		16	1,005
Limestone, blue .....		20	1,025
Sandstone, limy .....		35	1,060
Shale .....		10	1,070
Shale, sandy, red .....		15	1,085
Shale .....		18	1,103
Total depth .....			1,103

**Log No. 243**

J. H. Allen, lessor. Pennagrade Oil & Gas Co., lessee Location: Maytown. Completed: July 8, 1920. Production: Open flow from Maxon, 985, 250,000 cu. ft. gas.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil .....		40	40
Sandstone .....		100	140
Coal .....		10	150
Sandstone .....		70	220
Shale .....		30	250
Sandstone .....		10	260
Shale .....		100	360
Sands, limy, (gas 505-510) .....		115	475
First salt .....		95	570
Shale .....		5	575
Second salt, (water 650) .....		170	745
Shale, (water 760) .....		15	760
Shale, hard, gray, (gas 785) .....		55	815
Mississippian System.			
Shale, sandy, red, (Maxon) (gas 825) .....		10	825
Sandstone (Maxon) .....		25	850
Shale sandy, red .....		15	865
Limestone (Little Lime) .....		5	870
Shale, sandy, red .....		30	900
Shale .....		20	920



Mississippian System.		Thickness	Depth
Limestone .....		10	930
Shale, sandy, red .....		30	960
Shale, blue, (Maxon) (gas 985) .....		25	985
Sandstone, (water 1,035) .....		50	1,035
Sandstone .....		16	1,051
Total depth .....			1,051

**Log No. 244**

S. May, No. 1, lessor. Pennagrade Oil & Gas Co., lessee. Location: 1,000 ft. up first right hand branch of Wilson Creek. Completed: September 29, 1920. Production: 2,500,000 cu. ft. gas from Maxon.

## Strata.

Pennsylvanian System.		Thickness	Depth
Sandstone and shale .....		545	545
Sandstone, (gas 570) .....		245	790
Shale, black, (salt water) .....		50	840
Shale, green, (gas 870) .....		10	850
Shale, sandy .....		11	861
Sandstone .....		40	901
Shale, sandy .....		9	910
Shale, blue .....		2	912

## Mississippian System.

Shale, sandy, red .....	4	916
Sandstone (Maxon) .....	41	957
Total depth .....		957

**Log No. 245**

K. Moore, No. 1, lessor. Pennagrade Oil & Gas Co., lessee. Location: Right Beaver Creek, 1,300 feet above R. R. tunnel.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil .....		45	45
Shale .....		73	118
Sandstone .....		55	173
Shale .....		140	313
Sandstone, blue .....		60	373
Sandstone, (gas 495, 515) .....		357	730

Pennsylvanian System.	Thickness	Depth
Shale and shell .....	70	800
Sandstone, (salt water 525) .....	35	835
Shale, blue, (gas 828) .....	18	853
Sandstone .....	71	924
Shale, blue, (salt water 932) .....	28	952
Limestone shell .....	7	959
Shale, blue .....	20	979

Mississippian System.		
Shale, red, sandy .....	1	980
Sandstone (Maxon), (gas 980-997) .....	17	997
Total depth .....		997

### Log No. 246

W. R. Crisp, No. 1, lessor. Keystone Oil & Gas Co., lessee. Location: 1 mile up Turkey Creek. Completed: July 25, 1918. Production: Gas, 535 cu. ft. open flow, 60 qts. shot.

Strata.		
Pennsylvanian System.	Thickness	Depth
Soil .....	18	18
Sandstone .....	28	46
Shale .....	66	112
Sandstone .....	30	142
Shale .....	10	152
Sandstone .....	18	170
Shale .....	12	182
Sandstone .....	12	194
Shale .....	35	229
Shale .....	5	234
Sandstone .....	35	269
Shale .....	91	360
Sandstone .....	10	370
Shale, (gas 475-495, 100,000 cu. ft.) .....	11	381
Sandstone, (salt water 675) .....	370	751
Coal .....	2	753
Sandstone .....	15	768
Shale, black .....	9	777
Shale, sandy .....	4	781
Shale, light .....	30	811
Shale, black .....	16	827

Mississippian System.	Thickness	Depth
Shale, red, sandy, (pay gas 837-872, came in 260 M.) .....	10	837
Sandstone (Maxon) .....	35	872
Shale, black .....	22	894
Total depth .....		894

**Log No. 247**

J. P. Akers, No. 1, lessor. Pennagrade Oil & Gas Co., lessee. Location: Maytown. Completed: January, 1921.

## Strata.

Pennsylvanian System.	Thickness	Depth
Shale .....	50	50
Limestone .....	30	80
Coal .....	3	83
Fire clay .....	67	150
Shale .....	50	200
Limestone, (gas show 225) .....	50	250
Shale .....	50	300
Limestone, (gas show 330) .....	50	350
Shale and shell .....	75	425
Sandstone, limy .....	75	500
Sandstone .....	165	665
Shale .....	25	690
Sandstone .....	107	797
Shale .....	3	800
Sandstone .....	25	825
Shale .....	15	840
Limestone .....	5	845
Shale .....	5	850
Sandstone, limy .....	10	860
Shale .....	20	880
Limestone .....	10	890
Sandstone .....	20	910
Shale .....	8	918
Limestone .....	32	950

## Mississippian System.

Shale, sandy, red and Sandstone (Maxon) ....	65	1,015
Shale and shell .....	55	1,070
Limestone .....	18	1,088
Limestone and shale .....	24	1,112
Sandstone, limy .....	8	1,120
Limestone (Little Lime), (oil show 1,130) ...	20	1,140

Mississippian System.	Thickness	Depth
Sandstone, limy .....	56	1,196
Limestone (Big Lime), (oil show 1,256) .....	204	1,400
Shale, sandy, red, (gas show 1,380) .....	35	1,435
Shale, black .....	40	1,475
Sandstone, limy .....	50	1,525
Shale, black .....	33	1,558
Sandstone (Wier) .....	66	1,624
Shale, dark .....	6	1,630
Limestone .....	20	1,650
Shale .....	85	1,735
Limestone .....	70	1,805
Shale, black .....	725	2,530
Limestone (Corniferous) .....	80	2,610
Total depth .....		2,610

NOTE—Well stopped in sulphur gas in Corniferous.

#### Log No. 248

A. Ratliffe, No. 1, lessor. Ky. Coke Co., lessee. Location: Wilson Creek. Completed: April, 1921.

#### Strata.

Pennsylvanian System. .	Thickness	Depth
Soil .....	42	42
Sandstone .....	8	50
Coal .....	2	52
Shale .....	18	70
Coal .....	5	75
Shale .....	15	90
Sandstone .....	40	130
Limestone .....	20	150
Shale .....	50	200
Sandstone .....	40	240
Limestone .....	40	280
Shale .....	50	330
Sandstone .....	50	380
Shale .....	20	400
Limestone, black .....	30	430
Shale .....	20	450
Limestone .....	20	470
Sandstone .....	20	490
Shale and shell, (gas 620) .....	100	590
Sandstone, (gas 700) .....	240	830
Shale, (salt water 810) .....	10	840

Pennsylvanian System.		Thickness	Depth
Sandstone .....		72	912
Shale and sandstone .....		23	935
Limestone .....		10	945
Mississippian System.			
Shale, red, sandy .....		15	960
Sandstone (Maxon), (gas & oil 1,060) .....		60	1,020
Shale .....		12	1,032
Sandstone, (Maxon) .....		43	1,075
Shale .....		30	1,105
Sandstone, (salt water) .....		75	1,180
Total depth .....			1,180

**Log No. 249**

N. Martin, No. 1, lessor. Kentucky Coal Co., lessee. Location: Wilson Creek. Production: Gas in Maxon sand.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil .....		33	33
Sandstone .....		15	48
Shale and sandstone .....		177	225
Sandstone .....		55	280
Shale and sandstone .....		165	445
Sandstone, blue, (gas 590-610) .....		100	545
Sandstone, (salt water 675) .....		265	810
Shale .....		10	820
Limestone shell .....		15	835
Shale .....		20	855
Mississippian System.			
Shale, sandy, red .....		3	858
Sandstone (Maxon) .....		117	975
Total depth .....			975

**Log No. 250**

C. B. Webb, No. 1, lessor. Keystone Oil & Gas Co., lessee. Location: 3,600 feet south Maytown, west of main road, Right Fork of Beaver Creek. Completed: October 23, 1919. Open flow: 3,214,000. Rock pressure: 250 lbs. Casing head: 685,610. Production: 3,214,000 cubic feet gas.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil .....		20	20
Sandstone .....		40	60

Pennsylvanian System.	Thickness	Depth
Shale .....	60	120
Sandstone .....	55	175
Shale .....	40	215
Sandstone, (salt water 220) .....	40	255
Shale, (gas 345,321,000 cu. ft.) .....	115	370
Sandstone, gray (shale gas 540,130,000) ....	225	595
Sandstone, white, (salt water flooded 600)...	8	603
Sandstone, black .....	6	609
Sandstone, gray .....	71	680
Sandstone, white .....	80	760
Sandstone, dark .....	8	768
Shale, (gas 6-5/773) .....	30	798
Shale, white .....	11	809
Shale, dark .....	6	815
Sandstone, gray .....	4	819
Mississippian System.		
Shale, yellow (trace of red rock) .....	6	825
Sandstone (Maxon) .....	54	879
Total depth .....		879

### Log No. 251

Jonah Webb, No. 1, lessor. Keystone Oil & Gas Co., lessee. Location:  $\frac{1}{2}$  mile above Wilson Creek on Beaver Creek. Completed: May 8, 1918. Open flow: 1,267,000 cubic feet gas. Casing head: 826.19. Production: Gas, 100,000 cubic feet.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	18	18
Sandstone .....	82	100
Shale and sand .....	35	135
Shale .....	20	155
Sandstone dark gray .....	11	166
Shale, white .....	17	183
Shale and sand, (case in well, little gas) .....	20	203
Shale .....	57	260
Sandstone .....	35	295
Shale .....	55	350
Sandstone .....	15	365
Shale .....	74	439
Sand, (salt) (gas 439-605) (water 733-820) ..	461	900
Shale, (gas 6-5/8 905) .....	52	952

## Mississippian System.

	Thickness	Depth
Shale, red, sandy .....	2	954
Shale .....	4	958
Sandstone (Maxon), (gas pay 964-974) .....	52	1,010
Shale .....	2	1,012
Total depth .....		1,012

## Log No. 252

T. J. Webb, No. 1, lessor. Keystone Oil & Gas Co., lessee. Location: 1 mile above right fork of Beaver Creek on Henry Branch. Completed: 1918. Open flow: 550,000. Casing head: 707.83.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Soil .....	24	24
Shale, light .....	17	41
Shale, black .....	17	58
Sandstone .....	30	88
Shale, black .....	25	113
Shale, gray .....	27	140
Shale, black .....	15	155
Sandstone .....	12	167
Shale, sandy (show of gas) .....	23	190
Sandstone, light .....	10	200
Shale, light .....	50	250
Sandstone .....	35	285
Shale, dark .....	95	380
Sandstone .....	20	400
Shale .....	25	425
Limestone .....	15	440
Sandstone .....	12	452
Limestone, gray .....	28	480
Sandstone, salt, (gas 485-495,75,000) .....	155	635
Shale, sandy, dark, (gas 540-550, 75,000) ...	8	643
Sandstone, gray .....	32	675
Sandstone, dark .....	5	680
Sandstone, white, (salt water flooded 700) ..	90	770
Sandstone, dark gray .....	18	788
Shale, black, (case 6½ 794) .....	6	794
Shale and sand .....	46	840
Shale and red rock .....	7	847
Salt sand .....	13	860



Mississippian System.	Thickness	Depth
Shale and sand .....	5	865
Sandstone (Maxon) .....	49	914
Shale .....	5	919
Total depth .....		919

**Log No. 253**

W. R. Crisp, No. 1, lessor. Keystone Oil & Gas Co., lessee. Location: 1 mile up Turkey Creek. Completed: July 25, 1918. Production: Gas, open flow, small. Casing head: A. T. 677.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	18	18
Sandstone .....	28	46
Shale .....	66	112
Sandstone .....	30	142
Shale .....	10	152
Sandstone .....	18	170
Shale .....	12	182
Sandstone .....	12	194
Shale .....	35	229
Sandstone .....	10	239
Shale .....	15	254
Sandstone .....	15	269
Shale .....	75	344
Sandstone .....	16	360
Shale .....	10	370
Salt sand, (gas 475-495, 100,000 cu. ft.) ....	381	751
Coal .....	2	753
Sandstone, (salt water flooded hole 675) ....	15	768
Shale, black .....	9	777
Shale and sand .....	4	781
Shale, light .....	30	811
Shale, black .....	16	827

## Mississippian System.

Shale, red, sandy .....	7	834
Shale, yellow .....	3	837
Sandstone (Maxon) .....	35	872
Shale, black .....	22	894
Total depth .....		894

## Log No. 254

J. P. Allen, No. 1, lessor. Keystone Oil & Gas Co., lessee. Location:  $\frac{3}{4}$  mile south of Maytown, off main road 500 feet. Completed: July 24, 1919. Production: Gas, open flow, 3,618,000 cubic feet. Casing head: A. T. 682.5.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	45	45
Sandstone gray .....	20	65
Shale .....	55	120
Sandstone .....	60	180
Shale .....	55	235
Sandstone, (gas 270, 25,000) .....	35	270
Shale, (gas 340, 50,000) .....	130	400
Sandstone, gray, (gas 25,000) .....	125	525
Sandstone, gray, (gas 25,000) .....	20	545
Sandstone, dark .....	17	562
Sandstone, gray .....	6	568
Sandstone, white .....	30	598
Sandstone, gray and salt sand (flooded 680) ..	116	714
Coal .....	3	717
Sandstone, dark, (salt sand) .....	48	765
Shale .....	40	805
Sandstone .....	3	808
Mississippian System.		
Shale, red, sandy .....	6	814
Sandstone (Maxon) .....	49	863
Total depth .....		863

## Log No. 255

Kentucky Coke Co., (J. M. Osborn, No. 1), lessor. Louisville Gas & Electric Co., lessee. Location: Wilson Creek. Date Drilled: Nov. 1, 1921. Contractor: E. B. Duncan. Orig. Open Flow: 1,150,000 cubic feet gas. Orig. Rock Press.: 275 lbs.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	20	20
Sandstone .....	40	60
Coal .....	1	61
Sandstone .....	149	210
Shale .....	35	245

Pennsylvanian System	Thickness	Depth
Shale, calcareous .....	65	310
Shale .....	50	360
Shale, calcareous .....	20	380
Sandstone .....	40	420
Shale .....	20	440
Shale, calcareous .....	10	450
Sandstone .....	7	457
Shale, calcareous .....	6	463
Sandstone .....	47	510
Shale, hard .....	225	735
Shale .....	15	750
Sandstone .....	5	755
Shale .....	95	850
Shale, hard .....	5	855
Shale .....	7	862
Sandstone .....	2	864
Shale .....	13	877
Sandstone .....	13	890
Shale .....	55	945
Sandstone .....	5	950

## Mississippian System.

Limestone .....	25	975
Sandstone .....	3	978
Shale .....	7	985
Sandstone .....	5	990
Total depth .....		990

## Log No. 256

Kentucky Coke Co. (S. P. Ratcliffe, No. 1), lessor. Louisville Gas & Electric Co., lessee. Location: Head of Wilson Creek, Maytown. Date Drilled: Sept. 30, 1921. Contractor: E. B. Duncan. Orig. Open Flow: 170,000 cubic feet gas. Orig. Rock Press.: 530 lbs.

## Strata.

Pennsylvanian System.	Thickness	Depth
Gravel .....	35	35
Coal .....	2	37
Clay .....	13	50
Shale, calcareous .....	40	90
Shale .....	45	135
Sandstone .....	15	150
Shale .....	20	170

## Pennsylvanian System

	Thickness	Depth
Shale, calcareous .....	2	172
Shale .....	102	274
Shale and shell .....	15	289
Shale, hard .....	11	300
Shale .....	50	350
Sandstone .....	90	440
Shale .....	25	465
Sandstone .....	88	553
Shale .....	341	894
Sandstone .....	8	902
Shale .....	18	920
Sandstone .....	5	925
Shale .....	115	1,040
Sandstone .....	10	1,050

## Mississippian System.

Limestone, black .....	10	1,060
Sandstone .....	20	1,080
Shale .....	10	1,090
Sandstone .....	10	1,100
Shale .....	80	1,180
Shale .....	15	1,195
Limestone .....	5	1,200
Shale .....	12	1,212
Limestone .....	3	1,215
Shale (pencil cave) .....	13	1,228
Limestone .....	1	1,229
Limestone (Big Lime), dark .....	176	1,405
Red rock (Big Injun) .....	65	1,470
Limestone .....	25	1,495
Shale .....	35	1,530
Limestone .....	50	1,580
Shale, coffee .....	90	1,670
Limestone .....	50	1,720
Shale .....	50	1,770

## Devonian System.

Shale, black .....	30	1,800
Shale .....	25	1,825
Shale .....	45	1,870
Shale .....	30	1,900
Shale, brown .....	68	1,968
Shale .....	10	1,978
Total depth .....		1,978

**Log No. 256-A.**

Tom Reffet, No. 1, lessor. Beaver Creek Oil & Gas Co., lessee.  
 Location: Pitts Fork of Left Fork of Middle Creek, Floyd County, Ky.  
 Production: Gas, 3,000,000 cubic feet. Casing head elevation: 860  
 A. T. Authority: Frank Harmon, Bill Adams. Incomplete Record.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay and sandstone .....	30	30
Coal .....	5	35
Shale .....	165	200
Sandstone (Little Dunkard), (1st cow run) ..	60	260
Shale .....	115	375
Sandstone (Big Dunkard) .....	65	440
Shale .....	20	460
Sandstone, (gas sand) .....	15	475
Shale .....	105	580
Sandstone, salt, (1st) (gas) .....	135	715
Total depth .....		715

**Log No. 256-B.**

Lou Ann Wright farm, No. 1, lessor. Beaver Creek Oil & Gas Co., lessee. Location: Pitts Fork of Left Fork of Middle Creek, Floyd County, Ky. Production: Gas. Casing head elevation: 795 A. T.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sandstone, gray .....	28	28
Shale, blue .....	22	50
Sandstone and shale .....	7	57
Sandstone, gray .....	3	60
Shale, black .....	17	77
Coal .....	5	82
Shale, blue .....	33	115
Sandstone, gray .....	62	177
Shale .....	7	184
Sandstone, white .....	81	265
Shale, black .....	60	325
Sandstone, white .....	55	380
Shale, black .....	35	415
Sandstone .....	15	430
Shale, black .....	155	585
Sandstone .....	240	825
Shale .....	6	831
Sandstone .....	12	843
Shale, black .....	4	847

Pennsylvanian System		Thickness	Depth
Sandstone, white .....		48	985
Limestone, black, sandy .....		11	906
Coal .....		1	907
Mississippian System.			
Limestone and shale .....		19	926
Shale, black .....		41	967
Sandstone (Maxon) .....		119	1,086
Total depth .....			1,086
Light show of gas, 605; big flow, 670-715; lot of salt water, 740; show of oil, 1039-1046.			

## Log No. 256-C.

Colla Allen, No. 2, lessor. Eastern Carbon Co., lessee. Location:  
On waters of Goslin Branch of Goose Creek, Floyd County, Ky. Con-  
tractors: Dial & Meabon.

## Strata.

Pennsylvanian System.		Thickness	Depth
Gravel .....		25	25
Shale .....		25	50
Limestone, black .....		10	60
Sandstone .....		35	95
Shale .....		35	130
Limestone .....		20	150
Shale .....		90	240
Sandstone .....		110	350
Shale .....		67	417
Sandstone .....		23	440
Shale and shells .....		130	570
Sandstone .....		10	580
Shale .....		24	604
Sandstone, salt (1st) .....		146	750
Shale and shells .....		40	790
Sandstone, salt (2d) .....		120	910
Shale .....		10	920
Mississippian System.			
Limestone, sandy .....		40	960
Shale .....		13	973
Limestone, black .....		22	995
Shale .....		2	997
Sandstone (Maxon) (1st) .....		26	1,023
Shale .....		12	1,035

Mississippian System.	Thickness	Depth
Sandstone (Maxon) (2nd) .....	60	1,095
Shale .....	5	1,100
Sandstone .....	15	1,115
Shale .....	23	1,138
Sandstone .....	18	1,156
Shale .....	2	1,158
Sandstone .....	42	1,200
Shale .....	15	1,215
Sandstone .....	25	1,240
Shale and shells .....	45	1,285
Sandstone .....	11	1,296
Limestone (Little Lime) .....	27	1,323
Shale (pencil cave) .....	2	1,325
Limestone (Big Lime) .....	95	1,420
Shale .....	4	1,424
Sandstone (Keener) .....	6	1,430
Total depth .....		1,430
Casing left in hole 10" 24-4.		
Casing left in hole 8¼" 208-2.		

**Log No. 256-D.**

Colla Allen, No. 3, lessor. Eastern Carbon Co., lessee. Location: On Goose Creek, Floyd County, Ky. Completed: January 18, 1922. Contractors: Dial & Meabon. Production: Gas, 3½ million cubic feet oil, about 5 bbls. per day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	55	55
Sandstone .....	15	70
Shale .....	15	85
Sandstone .....	40	125
Shale, (fresh water 180) .....	157	282
Coal .....	4	286
Sandstone .....	19	305
Shale .....	30	335
Sandstone .....	150	485
Shale .....	105	590
Sandstone .....	30	620
Coal .....	4	624
Shale .....	96	720
Sandstone .....	15	735
Shale .....	88	823
Sandstone, salt (salt water 892, big water 1050) .....	294	1,117
Shale .....	5	1,122



## Mississippian System.

	Thickness	Depth
Limestone .....	43	1,165
Sandstone .....	72	1,237
Shale .....	5	1,242
Limestone .....	9	1,251
Sandstone and limestone, shelly .....	14	1,265
Sandstone .....	33	1,298
Shale .....	5	1,303
Sandstone .....	5	1,308
Shale .....	8	1,316
Sandstone .....	94	1,410
Shale, red, and limestone, shelly .....	20	1,430
Shale .....	37	1,467
Sandstone .....	10	1,477
Shale and shells .....	8	1,485
Limestone, shelly .....	15	1,500
Sandstone .....	48	1,548
Total depth .....		1,548

Show of oil, 1350.

Show of gas, 1393.

Gas started to pay, 1500, and payed to 1546.

Amount of gas, 3½ million cubic feet.

Oil pay at 1546, to 1548.

About 5 bbls. per day.

## Casing record:

10 in. casing, 21 ft.

8¼ in. casing, 253 ft.

6¼ in. casing, 1294 ft.

3 in. tubing, 1548 ft.

6¼ in. tubing packer set at 1341.

**FRANKLIN COUNTY.**

**Production:** Small gas. Producing sands: Unnamed of Trenton age (Ordovician).

**Log No. 257**

Louis C. Weber, No. 1, lessor. Dr. J. S. Goodrich and B. G. Pratte, lessees. Location: Near Devil's Hollow Pike on Benson Creek, above falls. Commenced and completed: Summer, 1920. Production: Oil and gas shows only. Authority: W. T. Congleton, driller, 346 Aylesford Place, Lexington, Ky.

## Strata.

## Ordovician System.

	Thickness	Depth
Soil .....	30	30
Shale .....	20	50
Limestone and shale .....	350	400
Limestone "sand" .....	25	425
Limestone, "salt water sand" .....	2	427
Total depth .....		427



## CHAPTER IV.

### FULTON COUNTY.

Production: Neither oil or gas to date. Producing Sands: None recognized to date.

Log No. 258

Roney, Mitchell & Bruer, Hickman, Ky., owners and operators  
Location: 150 yards S. E. Bondrant Station on C. M. & G. R. R., which is 8 miles S. W. Hickman, 1 mile N. Reelfoot Lake. Drilled with rotary machine. Driller: De Orman. Stratigraphic interpretations by W. R. Jillson. Authority: J. W. Roney. Production: Oil and gas show only to Dec. 7, 1921. Well incomplete and drilling.

#### Strata.

Quaternary System.	Thickness	Depth
Soil .....	15	15
Sand .....	105	120
Clay .....	15	135
Tertiary System.		
Sand, Pliocene or Miocene .....	20	155
Gumbo, Pliocene or Miocene .....	95	250
Gumbo and gravel, (10" casing), La Grange..	50	300
Sand and gravel, La Grange .....	50	350
Sand, brown, La Grange .....	100	450
Sand, hard, La Grange .....	480	930
Sand rock, La Grange .....	70	1,000
Brown water sand, La Grange .....	100	1,100
Sand, hard, La Grange .....	240	1,340
Shale, black, and gumbo, (8" casing), Porter's Creek .....	105	1,445
Brown rock, (gas show), Porter's Creek .....	6	1,451
Black gumbo, Porter's Creek .....	369	1,820
Cretaceous System.		
Shale, hard, and hard sand and gravel, showing some oil and gas all the way, Ripley-McNairy and Selma) .....	94	1,914
Shale hard, and sand, (Ripley-McNairy and Selma) .....	71	1,985
Limestone, hard, gray, with layers of chalk, (Ripley-McNairy and Selma) .....	285	2,270
Limestone, hard, gray (6" casing) .....	130	2,400
Limestone, hard, brown, green and red .....	300	2,700

Cretaceous System.	Thickness	Depth
Limestone, hard black, pyrites and silica . . . .	200	2,900
Chalk rock, white . . . . .	50	2,950
Limestone, hard, gray, sand and brown shale, (oil show) . . . . .	230	3,180
Incomplete depth, Dec. 7, 1921 . . . . .		3,180

NOTE—The computed thickness of the entire Mississippian Series regarded as present beneath the embayment series has been placed at from 1800 to 2300 feet. Accepting the base of the Cretaceous as 2120 the base of the Mississippian and the top of the Devonian here is probably about 4,300 feet below the surface. For purposes of comparison in this little "wild catted" section of extreme western Kentucky, the record of three recent wells, all drilled near to Reelfoot Lake, in Obion and Lake Counties, Tenn., are given as follows:

### OBION COUNTY, TENNESSEE.

#### Log No. 259

Roger Well, No. 1, lessor. Reelfoot Ranger Oil Co., lessee. Location: 3 miles east of Walnut Log, in Obion County, Tennessee. Collaborated authorities: J. S. Hudnall, collector of cuttings, supplied by Tennessee Geological Survey; Wilbur A. Nelson, stratigraphic divisions; and C. H. Richardson, mineralogical and lithological determinations. This log compiled from actual cuttings of rotary drill.

#### Strata.

Quaternary System.	Thickness	Depth
Clay, loess, calcareous, yellowish gray . . . . .	70	70
Clay, loess ferruginous . . . . .	20	90
Clay, calcareous, yellow . . . . .	10	100
Tertiary System.		
Gravel, coarse, river water rounded, Pliocene or Miocene . . . . .	40	140
Sand and gravel, river rounded, fine, Pliocene or Miocene . . . . .	5	145
Gravel, coarse, ferruginous, Pliocene or Mio- cene . . . . .	10	155
Unknown (no sample collected, Pliocene or Mio- cene) . . . . .	145	300
Sand, silicious, fine, gray, La Grange . . . . .	25	325
Sand or shale, fine, light gray, La Grange . . . .	5	330
Sand, dolomitic and calcareous, and shale La Grange . . . . .	25	355
Unknown, La Grange . . . . .	5	360

## Tertiary System.

## Thickness Depth

Shale, dolomitic, mangiferous and carbonaceous, La Grange .....	30	390
Sand, fine, with carbonaceous matter, La Grange .....	20	410
Gravel, fine, light gray, La Grange .....	25	435
Sand and gravel (break), angular, carbonaceous, La Grange .....	30	465
Sand, fine, and gravel, light gray, La Grange .....	30	495
Sand, fine, and gravel, light gray, La Grange ..	45	540
Gravel ferruginous, coarse, La Grange .....	30	570
Sand, mostly white, fine, La Grange .....	5	575
Sand and gravel, La Grange .....	10	585
Shale, light colored, fine quartz sand, La Grange .....	15	600
Sand, with little gravel, fine, and shale, La Grange .....	20	620
Sand and gravel, slightly dolomitic, mollusca, La Grange .....	25	645
Sand, coarse, subangular (break), La Grange ..	10	655
Sand, shale and gravel, small fossil, Porter's Creek .....	25	680
Sand, shale and flat limonite gravel, Porter's Creek .....	70	750
Sand and gravel, coarse and fine, Porter's Creek ..	20	770
Sandstone, fine and coarse, Porter's Creek ...	100	870
Sand and gravel, some clay, Porter's Creek ..	30	900
Sand, white, and ferruginous gravel, Porter's Creek .....	10	910
Sand, mostly white, Porter's Creek .....	10	920
Sand and gravel, flat and angular, pea size, Porter's Creek .....	30	950
Gravel, ferruginous, (break), some sand, Porter's Creek .....	115	1,065
Unrecorded, Porter's Creek .....	140	1,205
Sand and gravel, Porter's Creek .....	20	1,225
Gravel and clay, Porter's Creek .....	10	1,235
Sand and gravel, coarse, Porter's Creek .....	40	1,275
Sand and gravel and clay, Porter's Creek ...	45	1,320
Sand, gravel, sand clear quartz, Porter's Creek ..	120	1,440
Sand, gravel, mostly clear quartz sand, Porter's Creek .....	45	1,485
Sand, quartz and gravel of sandstone, Porter's Creek .....	20	1,505
Sand and gravel, mostly white quartz, Porter's Creek .....	95	1,600
Sand, very fine, Porter's Creek .....	25	1,625

Tertiary System.		Thickness	Depth
Sand and gravel, shaly, Porter's Creek .....	60	1,685	
Sand, gravel and bluish shale, Porter's Creek .	40	1,725	
Shale, bluish gray, alumina and silica, Porter's Creek .....	15	1,740	
Total depth .....		1,740	

**Log No. 260**

O. T. Wollaston, No. 1, lessor. Reelfoot Ranger Oil Co., lessee.  
 Location: Walnut Log, Obion County, Tennessee. Authority: Tenn.  
 Geological Survey. Stratigraphic divisions by Wilbur A. Nelson, State  
 Geologist, Tenn.

## Strata.

Quaternary System.		Thickness	Depth
Surface soil, .....	3	3	
Clay, silt and sand, (River fill) .....	17	20	
Quicksand, (River fill) .....	70	90	
Gravel, river water worn, (River fill) .....	95	185	
Tertiary System.			
Clay, silt and sand, Pliocene or Miocene .....	10	195	
Sand, (water), Pliocene or Miocene .....	20	215	
Gravel, clay and artesian flow, Pliocene or Miocene .....	45	260	
Clay, Pliocene or Miocene .....	15	275	
Sand and clay, Pliocene or Miocene .....	20	295	
Sand, clay and rock, Pliocene or Miocene .....	5	300	
Sand and clay, La Grange .....	10	310	
Sand and gravel, La Grange .....	20	330	
Quicksand, La Grange .....	5	335	
Gravel, La Grange .....	5	340	
Gravel and sand, La Grange .....	5	345	
Sand and clay, La Grange .....	25	370	
Sand and gravel, La Grange .....	40	410	
Gravel, sand, flint, chalk rock, La Grange .....	20	430	
Clay, blue, fine, sticky, La Grange .....	19	449	
Sand and flint, La Grange .....	31	480	
Gravel, La Grange .....	91	571	
Clay, sticky, and sand, La Grange .....	29	600	
Gravel and sand, La Grange .....	40	640	
Clay, sticky, and sand, La Grange .....	15	655	
Sand, La Grange .....	65	720	
Sandstone, hard, some gas, La Grange .....	5	725	
Gumbo and sand, La Grange .....	45	770	
Sand, La Grange .....	10	780	

Tertiary System.		Thickness	Depth
Sand and gumbo, La Grange .....		20	800
Sand, La Grange .....		40	840
Sand and gumbo, La Grange .....		15	855
Sand, (asphalt), La Grange .....		5	860
Clay, sticky, and sand, La Grange .....		65	925
Sand, La Grange .....		30	955
Clay, fine, and sand, La Grange .....		20	975
Sand, La Grange .....		35	1,010
Clay, sticky, and sand, La Grange .....		65	1,075
Total depth .....			1,075

## LAKE COUNTY, TENNESSEE.

## Log No. 261

Reelfoot Dome Oil Co., lessor. Location: northwest side of Reelfoot Lake, at Proctor City. Authority: De Armand, driller. Stratigraphic division by Wilbur A. Nelson, State Geologist, Tennessee Geological Survey. Selma fossils found in bottom of well.

## Strata.

Quaternary System.		Thickness	Depth
Soil .....		10	10
Sand and gravel .....		135	145
Unknown, (no sample), Pliocene or Miocene ..		55	190
Clay, blue gray, sticky, Pliocene or Miocene ..		20	210
Sand and clay, like buttermilk, with wood, some reddish, Pliocene or Miocene .....		15	225
Quicksand .....		75	300
Sand, blue, little clay, La Grange .....		80	380
Sand, gray, La Grange .....		103	483
Sand, La Grange .....		45	528
Gumbo, La Grange .....		37	565
Sand, hard, La Grange .....		20	585
Sand, brown, coarse, La Grange .....		200	785
Sand, hard, and gravel, La Grange .....		115	900
Sand rock La Grange .....		50	950
Shale, black, La Grange .....		70	1,020
Sand, hard, coarse, La Grange .....		60	1,080
Gumbo, gray, La Grange .....		60	1,140
Sand, brown, coarse, La Grange .....		125	1,265
Gumbo, sandy, Porters Creek .....		210	1,475
Shale, black, Porters Creek .....		25	1,500
Gumbo, sandy, (show of oil) Porters Creek ....		80	1,580



Tertiary System.	Thickness	Depth
Shale, black, Porters Creek .....	20	1,600
Shale, hard, yellow, fine shells, Porters Creek ..	20	1,620
Gumbo, sandy, Porters Creek .....	30	1,650
Cretaceous System.		
Shale, black, with blue lime shells and white flint, Selma—McNairy and Ripley .....	70	1,720
Shale, blue, with hard shells of flint and pyrite, Selma—McNairy and Ripley .....	230	1,950
Shells and hard sandstone, Selma—McNairy and Ripley .....	24	1,974
Limestone, Selma—McNairy and Ripley .....	101	2,075
Total depth .....		2,075

## GREEN COUNTY.

Production: Oil and Gas. Producing Sands: Corniferous (Devonian); Niagaran (Silurian).

### Log No. 262

Cashdollar, No. 1, lessor. Location: Gowan, near Russell Creek, 7 miles southwest of Greensburg.

#### Strata.

Mississippian System.	Thickness	Depth
Soil .....	8	8
Limestone, blue, hard, (water 50) .....	204	212
Shale, gray, .....	32	244
Devonian System.		
Shale, black .....	43	287
Limestone (cap rock) .....	2	289
Limestone, (oil "sand") .....	6	295
Total depth .....		295
122'—6½ casing.		
Drilled into water. Some came with the oil.		

### Log No. 263

J. E. Thompson, No. 1, lessor. George H. Carson, lessee. Mahan Bros., drillers. Location: 2 miles east of Coakeley. Completed: September, 1920. Production: ½ bbl. green oil.

#### Strata.

Mississippian System.	Thickness	Depth
Soil .....	18	18

Mississippian System.		Thickness	Depth
Limestone, brown .....		29	47
Caves and crevices .....		24	71
Gravel and water .....		7	78
Limestone, blue, hard .....		23	101
Limestone, gray .....		8	109
Limestone, broken .....		41	150
Limestone, gray .....		20	170
Limestone, broken .....		63	233
Limestone, gray, hard, flinty .....		12	245
Limestone, gray .....		29	274
Limestone, blue, hard .....		20	294
Limestone, broken .....		14	308
Limestone, gray .....		32	340
Limestone, broken .....		8	348
Limestone, gray, hard .....		25	373
Shale, blue .....		3	376
Limestone, gray .....		57	433
Limestone, gray, hard .....		17	450
Limestone, broken .....		57	507
Shale, green .....		1	508
Devonian System.			
Shale, black .....		59	567
Limestone (cap rock) .....		14	581
Pay sand .....		$\frac{1}{2}$	581 $\frac{1}{2}$
Limestone, light gray, sandy .....		17 $\frac{1}{2}$	599
Total depth .....			599
80 ft. 6 $\frac{1}{4}$ casing.			

**Log No. 264**

Vance, No. 1, lessor. Molloy & Gardner, lessees. Location: 3 miles southwest of Greensburg.

## Strata.

Mississippian System.		Thickness	Depth
Soil .....		4	4
Limestone .....		198	202
Devonian System.			
Shale, brown .....		57	259
Shale, green .....		4	263
Shale, black .....		47	310
Limestone (cap rock) .....		2	312
Limestone sand .....		11 $\frac{1}{2}$	323 $\frac{1}{2}$
Total depth .....			323 $\frac{1}{2}$



BARGING EASTERN KENTUCKY OIL.

The view is in the Kentucky River at Frankfort and shows one method of transporting petroleum to the Ohio River refineries.

**Log No. 265**

J. N. Nagle, No. 1, lessor. M. B. Cooley Oil & Gas Co., lessees.  
Location: 6 miles south of Greensburg, Ky., near Newt Thurlow.

Strata.

Mississippian System.	Thickness	Depth
Soil .....	3	3
Limestone .....	62	65
Shale (Waverly), shaly limestone and sand ..	10	75
Limestone, brown, (gas) .....	15	90
Limestone, shelly .....	10	100
Limestone, broken, (gas) .....	15	115
Limestone, shelly .....	10	125
Limestone, shelly, (gas) .....	5	130
Limestone, brown .....	95	225
Limestone, shelly .....	5	230
Limestone, broken .....	10	240
Limestone, gray, hard .....	188	428
Limestone, brown .....	20	448
Shale, green .....	4	452
Devonian System.		
Shale, black .....	40	492
Limestone ("cap" and "sand"), white .....	8	500
Shale, gray, soft, fire clay and yellow clay .....	35	535
Total depth .....		535
Casing, approx. 234.		

**Log No. 266**

John Risen, No. 1, lessor. Location: Summerville. Commenced:  
July 10, 1919. Completed: September 6, 1919. Drilling contractors:  
Houser and Moothart. Authority: The Atlantic Oil Producing Co.

Strata.

Mississippian System.	Thickness	Depth
Soil, yellow, soft .....	30	30
Limestone, gray, hard .....	98	128
Shale, blue, soft .....	22	150
Limestone, brown, hard .....	226	376
Shale, black, hard .....	1	377
Limestone, gray, hard, coarse .....	21	398
Limestone, gray, hard, fine .....	52	450
Devonian System.		
Shale, black, soft .....	55	505
Limestone, black and white, hard cap .....	3	508
Sand, gray, medium .....	1½	509½
Limestone, light gray, soft .....	26½	536
Total depth .....		536

**Log No. 267**

William Turner, No. 1, lessor. Location:  $\frac{1}{4}$  mile north of Highland School House. Production: Encountered several small pockets of gas, and a small showing of gas on top of pay sand.

## Strata.

	Thickness	Depth
Mississippian System.		
Soil .....	10	10
Limestone, blue .....	209	219
Limestone, broken .....	80	299
Devonian System.		
Shale, brown .....	48	347
Limestone (cap rock) .....	4	351
Shale, limy, (sand) .....	8	359
Shale, limy, (salt sand) .....	6	365
Total depth .....		365
Casing head el. above sea level, 690 ft.		
Base of black shale, el. 343 ft. above sea level.		

**Log No. 268**

J. H. Kessler, No. 1, lessor. S. W. Meals, et al., Pittsburg, Pa., lessees. Completed: August 21, 1920. Production: 5—10 bbls. oil.

## Strata.

	Thickness	Depth
Mississippian System.		
Soil .....	8	8
Limestone, hard .....	198	206
Limestone, broken .....	41	247
Devonian System.		
Shale, black .....	44	291
Limestone (cap rock) .....	2	293
Limestone (pay sand) .....	5	298
Total depth .....		298

Remarks: Oil showed in cap rock. Small amount of salt water showed at 298 feet, and drilling was stopped.

**Log No. 269**

A. H. Akin, No. 1, lessor. Location: 5 miles southwest of Greensburg. Completed: September 15, 1919. Shot July 6, 1921. Production: small oil. Drilled: Mallort and Godden. Authority: G. B. Taylor.

## Strata.

	Thickness	Depth
Mississippian System.		
Soil .....	30	30

Mississippian System.		Thickness	Depth
Limestone .....		88	118
Limestone, brown .....		101	219
Shale, green .....		3	222
Devonian System.			
Shale, black (Chattanooga) .....		145	267
Limestone (cap rock) .....		3	270
Limestone "sand," (good) .....		5	275
Limestone "sand," white .....		3	278
Total depth .....			278

**Log No. 270**

Blakeman, No. 1, lessor. G. B. Taylor, et al., lessees. Location:  
3 miles northeast of Greensburg. Completed: July, 1920.

## Strata.

Mississippian System.		Thickness	Depth
Soil .....		8	8
Limestone, hard .....		183	191
Devonian System.			
Shale, black (Chattanooga) .....		45	236
Limestone (cap rock) .....		24	260
Limestone "sand," (1½ million cu. ft. gas) .....		20	280
Limestone, broken, (salt water 290) .....		40	320
Shale, green .....		20	340
Shale, pink .....		14	354
Shale, very brown .....		28	382
Limestone, gray .....		420	802
Total depth .....			802

**Log No. 271**

Blakeman, No. 2, lessor. G. B. Taylor, et al., lessees. Location:  
2 miles northeast of Greensburg. Completed: March, 1921. Production: ½ million cu. ft. gas. Authority: G. B. Taylor.

## Strata.

Mississippian System.		Thickness	Depth
Soil .....		30	30
Limestone, hard, blue .....		68	98
Limestone, hard, flinty .....		58	156
Limestone, brown .....		12	168
Devonian System.			
Shale, black (Chattanooga) .....		48	216
Limestone (cap rock) .....		10	226
Sandstone and limestone .....		27	253
Total depth .....			253

**Log No. 272**

J. B. Cook, No. 1, lessor. Location: 10 miles southwest of Greensburg. Drilled by P. O. Johnson. Completed: September 10, 1919. Production: Tested on  $\frac{1}{2}$  million cu. ft. gas. Well is capped. Authority: G. B. Taylor.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	4	4
Limestone, blue .....	16	20
Limestone, gray .....	249	269
Shale, gray .....	20	289

## Devonian System.

Shale, black (Chattanooga) .....	44	333
Limestone (cap rock) .....	2	335
Limestone "sand," (oil show 349) .....	25	360
Limestone, broken .....	7	367
Shale, pink .....	15	382
Shale, green .....	1	383
Total depth .....		383

**Log No. 273**

Gowen, No. 1, lessor. J. W. Cashdollar, et al., lessees. Location: 7 miles southwest Greensburg on the Little Russell Creek. Completed: August 14, 1919. Production: 120 ft. of oil after the first 12 hours. Well is not being pumped. Authority: G. B. Taylor.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	10	10
Limestone, hard .....	206	216
Shale, gray .....	32	248

## Devonian System.

Shale, black (Chattanooga) .....	43	291
Limestone (cap rock) .....	2	293
Limestone ("Irvine sand") .....	3	296
Total depth .....		296



**Log No. 274**

W. L. Hicks, No. 1, lessor. G. B. Taylor, et al, lessees. Location: 13¼ miles north of Greensburg. Contractor: G. B. Taylor. Completed: June 1, 1921. Authority: G. B. Taylor.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	2	2
Limestone, gray, hard .....	89	91
Limestone, gray, flinty .....	50	141
Limestone, gray, broken .....	13	154
Devonian System.		
Shale, black (Chattanooga) .....	46	200
Limestone (cap rock) .....	11	211
Limestone "sand," brown, tight .....	9	220
Limestone "sand," brown, broken .....	16	236
Ordovician System.		
Shale, gray, and mud, blue .....	7	243
Shale, gray .....	5	248
Limestone, "salt sand," (salt water) .....	2	250
Total depth .....		250

Gas 54, 76, 125, 142, 211 and 226 feet. Salt water found in bottom of hole rose approximately 35 feet in hole.

**Log No. 275**

R. A. White, No. 3, lessor. Green River Gas Co., lessee. Location: on Meadow Creek about 6,000 feet directly north of R. A. White, No. 1, and about 2,500 feet southeast of Whitewood Station. Commenced: January 1, 1921. Completed: February 14, 1921. Production, by Pitot Tube, 2,740,608 cu. ft. gas. Contractors: More and Moss.

## Strata.

Mississippian System.	Thickness	Depth
Soil, yellow .....	3	3
Gravel, creek bed .....	2	5
Shale, gray .....	2	7
Limestone, gray .....	14	21
Limestone, flinty, gray .....	25	46
Limestone, blue .....	19	65
Sand, brown .....	3	68
Limestone, hard, flinty .....	8	76
Limestone, white .....	12	88
Shale, blue .....	16	104
Limestone, hard, shelly .....	14	118
Limestone, white .....	6	124
Devonian System.		
Shale, black (Chattanooga) .....	49	173
Limestone, white .....	2	175

Devonian System.	Thickness	Depth
Sand, limy, light gray .....	1	176
Sand, fine, light brown .....	1	177
Sand, dark gray .....	1	178
Limestone, gray, sandy .....	1	179
Sand, gray .....	1	180
Sand, limy, gray .....	2	182
Limestone, sandy, dark gray .....	3	185
Limestone, sandy, dark gray .....	2	187
Limestone, sandy, light gray .....	2	189

Silurian System.		
Sand, gray, limy (gas show, steel line) .....	1½	190½
Sand gray, limy (gas show increasing) .....	2½	193
Limestone, light gray, sandy .....	3	196
Sand, limy, light gray (gas increases to half million) .....	3	199
Sand, limy, light gray (gas increases to 600,000) .....	1	200
Sand, coarse, gray, limy (gas increases to 2,500,000) .....	10	210
Sand, coarse, gray, limy (gas increases to 3,000,000) .....	5	215
Total depth .....		215
Rock pressure, 37 lbs.		
Casing: 8¼" 10'		
6¼" 70'		

### Log No. 276

W. M. Price, No. 1, lessor. Cutler and Wallis, Inc., lessees. Location: near Crab. Drilled by Mahan Bros. Commenced: March 17, 1921. Authority: G. B. Taylor.

#### Strata.

Mississippian System.	Thickness	Depth
Soil and loose rock .....	8	8
Limestone, hard, gray, non-cryst, no fossils, (water 27) .....	44	52
Crystals, rusty .....	2	54
Limestone, hard, gray .....	13	67
Limestone, light gray, hard, rusty .....	8	75
Limestone, gray .....	2	77
Limestone, gray, (water 88) .....	11	88
Limestone, blue, gray, broken .....	11	99
Limestone, hard, blue .....	9	108
Limestone, dark blue, broken .....	7	115
Limestone, blue and gray, (some gas) .....	9	124
Limestone, blue gray, white specks .....	8	132

Mississippian System.	Thickness	Depth
Limestone, blue gray, broken .....	76	208
Limestone, dark blue, hard in spots .....	12	220
Limestone, blue gray, massive .....	15	235
Limestone, blue gray .....	10	245
Limestone, gray .....	17	262
Limestone, blue, soft .....	9	271
Limestone, gray, hard .....	29	300
Limestone, blue gray, (gas 314) .....	14	314
Limestone, hard, gray, blue .....	33	347
Limestone, hard, gray, (little gas) .....	10	357
Limestone, gray, blue .....	59	416
Devonian System.		
Shale, black (Chattanooga) .....	46	462
Limestone (cap rock) .....	1	463
Limestone "sand," hard, white, (show of oil 464) .....	13	476
Limestone, white, sandy .....	8	484
Shale, gray, limy .....	2	486
Incomplete depth .....		486

NOTE—This is an incomplete record of this well, which was drilled deeper.

#### Log No. 277

Porter Turner, No. 1, lessor. Location: 4 miles north of Greensburg on Big Pitman Creek. Completed: February, 1919. Production: Gas well; the gas is used for domestic purposes. Authority: G. B. Taylor.

#### Strata.

Mississippian System.	Thickness	Depth
Soil .....	7	7
Limestone, shelly .....	2	9
Gravel .....	2	11
Limestone, hard, blue .....	139	150
Shale, hard, black .....	43	193
Shale, black .....	10	203
Shale, green .....	9	212
Devonian System.		
Shale, brown (Chattanooga) .....	48	260
Limestone "sand," brown .....	3	263
Limestone (cap rock) .....	4	267
Limestone "sand" .....	11	278
Total depth .....		278

**Log No. 278**

M. P. Vaughn, No. 1, lessor. Location: 6 miles southwest of Greensburg. Drilled by S. W. Neal, et al. Production: Flush 12 bbls. oil, but not being pumped. Authority: G. B. Taylor.

## Strata.

	Thickness	Depth
Mississippian System.		
Soil .....	10	10
Limestone, hard .....	229	239
Devonian System.		
Shale, black, (Chattanooga) .....	43	282
Limestone (cap rock) .....	1	283
Limestone "sand" .....	9	292
Total depth .....		292

**Log No. 279**

A. V. Walker, No. 1, lessor. Location: 2½ miles southwest of Greensburg. Drilled by Mallory and Godden. Completed: July, 1919. Production: small oil. Not under pump. Authority: G. B. Taylor.

## Strata.

	Thickness	Depth
Mississippian System.		
Limestone, hard .....	298	298
Devonian System.		
Shale, black (Chattanooga) .....	48	346
Limestone (cap rock) .....	2	348
Limestone "sand" .....	10	358
Total depth .....		358

**Log No. 280**

F. G. Yankey, No. 1, lessor. Completed: January 31, 1921. Authority: G. B. Taylor.

## Strata.

	Thickness	Depth
Mississippian System.		
Soil .....	2	2
Limestone, hard .....	198	200
Limestone, broken .....	20	220
Devonian System.		
Shale, black (Chattanooga) .....	48	268
Limestone (cap rock) .....	20	288
Limestone "sand" .....	37	325
Ordovician System.		
Limestone (salt sand) .....	27	352
Limestone, blue, broken .....	26	378
Shale, pink .....	11	389
Shale, green .....	13	402
Limestone, brown .....	10	412

Ordovician System.	Thickness	Depth
Limestone, blue, broken, with hard streaks ..	41	453
Limestone, broken .....	147	600
Total depth .....		600
Small amount of gas at 290 feet		
Set 115 feet with $8\frac{1}{4}$ inch casing.		
Set 356 feet with $6\frac{1}{4}$ inch casing.		

## GREENUP COUNTY.

Production: Oil and gas shown only to date. Producing Sands: None recognized.

### Log No. 281

Geo. F. Bradley, No. 1, lessor. United Fuel Gas Co., Transylvania Oil & Gas Co., lessees. Location: Big White Oak Creek, Greenup County, Ky. Completed: June 6, 1918.

#### Strata.

Mississippian System.	Thickness	Depth
Soil, gravel, etc. (water at 12) .....	12	12
Limestone (Big Lime) .....	75	87
Clay, blue .....	53	140
Shale and shells .....	165	305
Sandstone .....	45	350
Shale .....	65	415
Limestone .....	133	548
Devonian System.		
Shale, black .....	33	581
Coal .....	19	600
Shale, brown, (cased 794'— $8\frac{1}{4}$ ") .....	385	985
Shale, white .....	80	1,065
Limestone, (show of gas) .....	7	1,072
Limestone (Ragland "sand"), (water 1,115)	48	1,120
Silurian System.		
Limestone (Niagara) .....	300	1,420
Ordovician System.		
Shale, white .....	10	1,430
Shale, sandy, red (cased 1,520'— $6\frac{5}{8}$ ") .....	120	1,550
Limestone, (oil show 1,629) .....	100	1,650
Shale .....	17	1,667
Total depth .....		1,667

#### Casing record:

10" 32 lbs., 100' pulled.  
 $8\frac{1}{4}$ " 24 lbs., 794' left in well.  
 $6\frac{5}{8}$ " 17 lbs., 1,520' pulled.

**Log No. 282**

Sanford Bradley, No. 1, lessor. United Fuel Gas Co., Transylvania Oil & Gas Co., lessees. Location: Big White Oak Creek. Completed: December, 1918.

Strata.		Thickness	Depth
Mississippian System.			
Surface, gravel, etc. (fresh water 20) .....		20	20
Limestone .....		35	55
Shale .....		45	100
Clay, blue .....		200	300
Shale and limestone .....		125	425
Sand .....		10	435
Limestone .....		90	525
Devonian System.			
Shale, black .....		75	600
Shale, white .....		75	675
Limestone and black shale .....		50	725
Shale, brown .....		90	815
Limestone shell .....		10	825
Shale, brown .....		100	925
Shale, light .....		70	995
Limestone, light, hard .....		320	1,315
Shale, light .....		10	1,325
Ordovician System.			
Limestone, red, shaly .....		125	1,450
Shale, white .....		35	1,485
Limestone, red, shaly .....		15	1,500
Shale, blue .....		10	1,510
Limestone .....		25	1,535
Shale, blue .....		40	1,575
Shale and shells .....		35	1,610
Limestone, red, shaly .....		20	1,630
Shale .....		125	1,755
Limestone .....		10	1,765
Shale and limestone shells .....		536	2,301
Total depth .....			2,301
Water at 432.			
Show of oil and gas, 1,000.			
Water, 3 bailers per hr., 1,015.			
Water, hole full, 1,080.			
Cave, 1,375 to 1,425.			

## Casing record:

13" conductor 13½".

10" casing 106' pulled.

8¾" casing 500' pulled.

6⅝" casing 1,330' pulled.

NOTE—The Corniferous limestone occurs in the upper part of the 320 feet of limestone above 1,315 feet in depth. The base of the Devonian and the top of the Silurian is also within this 320 feet of limestone.

## HANCOCK COUNTY.

Production: Oil and gas. Producing Sands: "Pellville" and "Tar Springs" (Chester-Mississippian).

## Log No. 283

Breckinridge Cannel Coal Co., England, owner and operator. Location: Victoria Post Office. Drilled in spring of 1921. Driller, Albert MacGarvey. Stratigraphic interpretation by Prof. Arthur M. Miller, Lexington, Ky. Casing head, 550 feet, A. T. Standard Rig. Casing-head strata: Top of Chester.

## Strata.

Mississippian System.	Thickness	Depth
Surface materials .....	14	14
Shale, light colored, (Buffalo Wallow) .....	5	19
Limestone, white, (Buffalo Wallow) .....	6	25
Shale, gray, (Buffalo Wallow) .....	8	33
Limestone, gray, (Buffalo Wallow) .....	4	37
Shale, gray, (Buffalo Wallow) .....	13	50
Limestone, white to gray, (Buffalo Wallow) ..	32	82
Shale, mainly, light to dark, (Buffalo Wallow)	38	120
Sandstone and dark shale (Tar Springs) .....	23	143
Limestone dark, (Glen Dean) .....	1	144
Shale, calcareous, (Glen Dean) .....	14	158
Limestone, dark, (Glen Dean) .....	4	162
Shale, dark gray, (Glen Dean) .....	1	163
Limestone, dark gray, (Glen Dean) .....	5	168
Shale, dark gray, (Glen Dean) .....	29	197
Limestone, dark, crystalline, (Glen Dean) ...	3	200
Shale, dark, (Glen Dean) .....	2	202
Limestone, dark, crystalline, (Glen Dean) ...	15	217
Sandstone and shale (Hardinsburg) .....	11	228
Limestone, dark to light, (Golconda) .....	37	265
Shale, (Golconda) .....	19	284
Limestone, white to gray, (Golconda) .....	52	336



Mississippian System.	Thickness	Depth
Shale, dark to light, (Goleconda) .....	22	358
Limestone, slaty, (Goleconda) .....	12	370
Sandstone with shale (Cypress) .....	62	432
Limestone, (Casper) .....	24	456
Sandstone, white, (Casper) .....	13	469
Limestone, white to dark, (Casper) .....	231	700
Limestone, oolitic, white, (show of oil), (St. Genevieve) .....	170	870
Limestone, varying in color, and of varying degrees of purity (St. Louis, Warsaw and Upper Waverly) .....	820	1,690
Shale, greenish (New Providence) .....	30	1,720
Devonian System.		
Shale, black (Ohio-Chattanooga) .....	198	1,918
Limestone, white .....	52	1,970
Silurian System.		
Limestone, yellow to white .....	170	2,140
Ordovician System.		
Limestone, of varying colors and textures, at bottom, compact like Highbridge limestone .....	1,005	3,145
Total depth .....		3,145

**Log No. 284**

R. C. Jett Farm. Location: 2 miles S. E. of Pellville. Completed: Sept. 1921. Authority: C. Tobin Johnson.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Soil .....	8	8
Sandrock .....	117	125
Sandstone, broken, and shale .....	185	310
Fire clay .....	20	330
Shale, muddy .....	5	335
Mississippian System.		
Limestone, brown .....	15	350
Shale .....	5	355
Limestone, gray, and shale .....	37	392
Shale .....	4	396
Limestone and shale .....	8	404

Mississippian System.	Thickness	Depth
Shale .....	44	448
Limestone, gray .....	8	456
Shale .....	8	464
Sand (gas pay) (Tar Springs) .....	3	467
Sand (oil pay) (Tar Springs) .....	16	483
Shale .....	2	485
Total depth .....		485
30' of 10" casing.		
210' of 8" casing.		
Shot with 60 qts. Shows for 25 bbls.		
Sand brown and medium soft.		
Drilled by Oak Oil Co.		

## HARDIN COUNTY.

Production: Neither oil or gas. Producing Sands: None recognized.

## Log No. 285

Stuart, No. 1, lessor. Frank X. Piatt, lessee. Location: near Colesburg. Commenced: December 29, 1920. Completed: January 20, 1921. Production: Salt water.

## Strata.

Mississippian System.	Thickness	Depth
Soil, clay .....	4	4
Shale, blue, sticky .....	62	66
Devonian System.		
Shale, black (Chattanooga) .....	79	145
Limestone, gray .....	17	162
Limestone, brown .....	23	185
Limestone, sandy (salt water) .....	35	220
Shale, "fire clay" .....	10	230
Silurian System.		
Limestone, sandy (salt water) .....	48	278
Limestone, shaly .....	82	360
Total depth .....		360

## HARRISON COUNTY.

Production: Neither oil or gas. Producing Sands: None recognized.

## Log No. 286

Maybrier, No. 1, lessor. Starts in top of Cynthiana. Gas, 250 to 254; salt water 254. Authority: L. Beckner.

## Strata.

Ordovician System.	Thickness	Depth
Limestone .....	254	254
Limestone, blue gray, hard, (lithograph) ....	436	690
Limestone, light dove gray, very hard .....	70	760
Limestone, shaly, dark, almost black, soft (grained almost) .....	65	825
Limestone, dark pepper dove, very hard fine..	15	840
Limestone, light blue green, very soft .....	33	873
Limestone, light dove, soft .....	6	879
Limestone, blue, muddy, very soft .....	41	920
Limestone, dark pepper and salt, with green shale, hard .....	45	965
Salt sand, light, dove yellow, St. Peter, very fine crystalline .....	10	975
Limestone, very light dove yellow crystal ....	25	1,000
Unrecorded sediments .....	225	1,225
Limestone, fine, sandy, dark yellow .....	65	1,290
Limestone, fine, white, sandy .....	3	1,293
Limestone, fine, light, sandy, wet .....	22	1,315
Limestone, fine, light, sandy, wet .....	10	1,325
Limestone, fine, dark, sandy .....	20	1,345
Limestone, fine, light, sandy, (mineral water)	7	1,352
Limestone, sandy, very coarse, and white mag- nesite .....	6	1,358
Limestone, sandy, coarse, with less magnesite, but small pyrite crystals .....	6	1,364
Total depth .....		1,364

## HART COUNTY.

Production: Small oil and gas. Producing Sands: Unnamed.

## Log No. 287

Elizabeth Gaddie, No. 1, lessor. New Domain Oil & Gas Co., lessee. Location:  $\frac{3}{4}$  mile south of Boiling Springs Church, at bend of Green River. Completed: February 12, 1919. Production: filled up with salt water within 30 ft. of top  $\frac{1}{2}$  hr. Well abandoned. Casing: 234—6 $\frac{1}{4}$ . Authority: New Domain Oil & Gas Co.

Strata.		
Mississippian System.		Thickness Depth
Soil, mud .....	20	20
Limestone, gray .....	140	160
Limestone, blue .....	375	535
Devonian System.		
Shale, black (Chattanooga) .....	55	590
Limestone, white .....	60	650
Shale, blue .....	10	660
Sand, gray .....	60	720
Total depth .....		720

**Log No. 288**

J. C. Nunn, No. 1, lessor. New Domain Oil & Gas Co., lessee.  
 Location: 1½ miles northwest Boiling Springs Church. Completed:  
 May 10, 1919. Authority: New Domain Oil & Gas Co.

Strata.		
Mississippian System.		Thickness Depth
Gravel, red .....	7	7
Limestone, white .....	233	240
Shale, black .....	5	245
Limestone, black .....	6	251
Shale .....	8	259
Limestone .....	551	810
Devonian System.		
Shale, black (Chattanooga) .....	66	876
Limestone, gray .....	16	892
Shale, black .....	2	894
Limestone, white .....	42	936
Shale, black .....	5	941
Limestone .....	31	972
Limestone (salt water) .....	14	986
Total depth .....		986

Filled 600 ft. south.

Salt water 2 ft. in sand.

Casing 267—8¼.

876—6¼.

NOTE—This hole filled with salt water when the tools were pulled out for the last 14 feet. Well abandoned.

**Log No. 289**

H. L. Richardson, No. 1, lessor. New Domain Oil & Gas Co., lessee. Location:  $\frac{1}{4}$  mile north Boiling Springs Church, about 5 miles northeast of Munfordville. Completed: December 5, 1918. Production: Well dry and abandoned. Authority: New Domain Oil & Gas Co.

## Strata.

Mississippian System.	Thickness	Depth
Clay .....	15	15
Limestone, gray .....	150	165
Limestone, black .....	461	626
Devonian System.		
Shale, black (Chattanooga) .....	60	686
Limestone, gray .....	60	746
Limestone "sand," gray .....	39	785
Silurian System.		
Limestone "sand" (salt water) .....	25	810
Limestone, black, (6 $\frac{1}{4}$ " casing, 855) .....	190	1,000
Shale and limestone .....	424	1,424
Limestone, gray .....	76	1,500
Limestone, black .....	80	1,580
Total depth .....		1,580

**HENDERSON COUNTY.**

Production: Oil and gas. Producing sands: Sebree and Pottsville (Pennsylvanian). The Tar Springs and Cypress sands (Mississippian) are also untried possibilities.

**Log No. 289A.**

O'Nan Heirs, No. 1, lessors. Union County Syndicate, Union County, Ky., lessee. Location: 500 yards northeast of Highland Creek, and about 500 yards south of the Illinois Central Railroad right of way. This well is 1 mile southeast of Proctor, No. 1, well (Union County). Commenced: March 4, 1922. Completed: April 1, 1922. Authority: Ivyton Oil & Gas Co. Production: Salt water; well plugged and abandoned.

Strata.		Thickness	Depth
Pennsylvanian System.			
Drift . . . . .	Lisman Formation, Conemaugh Series	125	125
Shale and slate . . . . .		47	172
Fire clay . . . . .		2	174
Lime, flinty . . . . .		4	178
Fire clay . . . . .		2	180
Coal (No. 11) . . . . .		4	184
Slate . . . . .		61	245
Slate . . . . .		55	300
Shale, hard . . . . .		12	312
Slat . . . . .		38	350
Coal . . . . .		22	372
Fire clay . . . . .		3	375
Sand, dark . . . . .		20	395
Slate . . . . .		25	420
Coal . . . . .		1	421
Slate, dark . . . . .	Carbondale Forma- tion (composed of DeKoven and Mulford), Allegheny Series.	64	485
Coal and slate . . . . .		4	489
Slate . . . . .		4	493
Sandy shell . . . . .		4	497
Slate, sandy . . . . .		53	550
Slate, dark . . . . .		15	565
Coal . . . . .		1	566
Shale, black . . . . .		3	569
Shale, light . . . . .		17	586
Slate, dark . . . . .		27	613
Sand, gritty, dark . . . . .		8	621
Slate, dark . . . . .		5	626
Slate, hard . . . . .		4	630

Pennsylvanian System.		Thickness	Depth
Fire clay and light shale,	} Carbondale Formation (composed of DeKoven and Mulford), Allegheny Series.	34	664
Sand, white . . . . .		31	695
Sand, salt water.		15	710
Total depth . . . . .			710

NOTE—Full representation of Caseyville and Tradewater formations of Pottsville Series undrilled. Estimated thickness about 600 feet in this locality. The Pottsville Series was not drilled.

## HOPKINS COUNTY.

**Production:** Small oil and gas. **Producing Sands:** Unnamed (Pennsylvanian), unnamed (Mississippian).

### Log No. 290

Pools, No. 3, lessor. Moss Hill Oil & Gas Co., lessee. Location: 2 miles south of White Plains, and  $\frac{1}{2}$  mile from well No. 2 on this farm. Completed: in 1918. Production: at first was about 5 bbls. per day; oil is in this well now, but is not being pumped out, August, 1920. Authority: L. E. Littlepage.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Clay . . . . .	3	3
Clay and gravel . . . . .	7	10
Clay, sandy . . . . .	17	27
Shale, hard, limy . . . . .	1	28
Fire clay . . . . .	7	35
Shale, soft . . . . .	25	60
Shale . . . . .	22	82

Pennsylvanian System.	Thickness	Depth
Shale, hard .....	2	84
Fire clay .....	12	96
Shale .....	7	103
Shale, hard .....	6	109
Shale, sandy .....	36	145
Shale, soft .....	41	186
Shale, hard, limy .....	2	188
Shale .....	12	200
Shale, hard, limy .....	3	203
Shale, soft .....	5	208
Sand rock, gray .....	42	250
Shale, soft .....	4	254
Shale, hard .....	3	257
Fire clay .....	8	265
Shale .....	75	340
Limestone and shale .....	10	350
Sand, (oil) .....	10	360
Sandstone, white .....	7	367
Shale .....	5	372
Limestone and shale .....	63	435
Sandstone, (water) .....	5½	440½
Total depth .....		440½

**Log No. 291**

Pools, No. 2, lessor. Moss Hill Oil & Gas Co., lessee. Location: 2 miles south of White Plains. Completed: in 1918. Production: Flush 20 bbls. pumped; now the well stands 300 feet in oil, August, 1920. Authority: L. E. Littlepage.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Clay and soil .....	19	19
Coal .....	1	20
Fire clay .....	13	33
Sand, rock .....	7	40
Shale .....	4	44
Shale, hard, limy .....	3	47
Shale .....	43	90
Fire clay .....	6	96
Shale .....	29	125
Shale, hard, limy .....	7	132
Shale .....	37	169
Shale, hard, limy .....	1	170
Shale .....	65	235



Pennsylvanian System	Thickness	Depth
Sandstone .....	9	244
Shale, soft .....	1	245
Sandstone .....	5	250
Fire clay .....	3	253
Shale, hard, limy .....	1	254
Shale .....	24	278
Shale, hard, limy .....	12	290
Shale .....	27	317
Coal .....	1	318
Shale .....	20	338
Shale (cap rock), hard .....	1	339
Sand, (oil) .....	3	342
Sand rock, white .....	1	343
Total depth .....		343

## Log No. 292

Bailey, No. 6, lessor. The Moss Hill Oil & Gas Co., lessee. Location:  $\frac{1}{4}$  mile north of White Plains. Completed: in 1919. Authority: L. E. Littlepage.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	15	15
Shale, hard .....	10	25
Sand .....	10	35
Shale, gray .....	25	60
Sand and shale .....	60	120
Shale, shelly .....	4	124
Shale, brown .....	51	175
Sand .....	15	190
Shale .....	50	240
Sand .....	20	260
Shale .....	90	350
Shale, shelly .....	5	355
Sand, (oil) .....	5	360
Shale .....	20	380
Limestone .....	<b>15</b>	<b>395</b>
Shale, brown (pencil cave) .....	155	550
Sand, (water) .....	155	705
Shale .....	10	715
Sand, broken .....	15	730
Shale, brown .....	20	750
Sand .....	5	755

Pennsylvanian System.		Thickness	Depth
Limestone, brown, and shells .....		20	775
Shale .....		10	785
Limestone (cap rock) .....		3	788
Sand, white, (oil) .....		8	796
Total depth .....			796

## JACKSON COUNTY.

Production: Oil and Gas. Producing Sands: Unnamed (Mississippian);  
Corniferous (Devonian).

## Log No. 293

Sereno Johnson, No. 1, lessor. Wheeling-Kentucky Development Co., lessee. Location: Moore's Creek. Authority: E. A. Meade, contractor, through L. Beckner.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil .....		8	8
Shale .....		8	16
Shale, hard gray, (water 33, water and gas 80) .....		64	80
Shale, hard, gray .....		50	130
Sandstone .....		20	150
Shale .....		50	200
Sand .....		20	220
Shale .....		10	230
Sand, (water 300) .....		95	325
Shale, black .....		15	340
Shale, gray, hard .....		30	370
Mississippian System.			
Shale, red, sandy .....		40	410
Shale, gray, hard .....		90	500
Limestone (Big Lime) .....		200	700
Shale .....		20	720
Shale, red, sandy .....		10	730
Sandstone, (little gas) .....		5	735
Shale, hard .....		35	770
Shell, very hard .....		5	775
Shale, hard .....		295	1,070
Devonian System.			
Shale, black .....		207	1,277
Limestone, brown, hard, gritty .....		5	1,282
Limestone, brown, sandy .....		15	1,297

Devonian System.	Thickness	Depth
Shale, white (turning green) .....	78	1,375
Shale, very red .....	33	1,408
Shale, gray, hard .....	10	1,418
Total depth .....		1,418
8 inch casing in well, 40 feet.		
65 $\frac{5}{8}$ inch casing in well, 431 feet and 5 inches.		
65 $\frac{5}{8}$ inch casing in water well 21 feet.		
Depth of water well 37 feet.		

NOTE—The base of the Devonian and the top of the Silurian occur in the 78 feet of shale above 1,375 feet.

## JEFFERSON COUNTY.

Production: Neither oil or gas. Producing Sands: None recognized.

### Log No. 294

William Yann, No. 1, lessor. Buechel Oil & Mineral Co., operators. Location: Buechel, Ky. Commenced: Oct., 1919. Completed June, 1920. Contractor: J. H. Wolfe. Elevation: 495. Casing head strata: Base of Silver Creek horizon of Sellersburg limestone (base of the Devonian).

#### Strata.

Devonian, Silurian & Ordovician Systems.	Thickness	Depth
Conductor .....	6	6
Limestone, blue, hard, (water 18) .....	85	91
Fireclay, light .....	5	96
Limestone, gray, hard .....	44	140
Limestone and shale, shelly, (water 160, 320) .....	230	370
Limestone, dark, (8 $\frac{1}{4}$ in. casing) .....	130	500
Limestone and shale, shelly .....	315	815
Limestone, gray .....	85	900
Limestone, dark .....	70	970
Limestone, light gray, hard .....	15	985
Limestone, dark gray .....	30	1,015
Limestone, (cavernous to about 1,325) .....	70	1,085
Limestone, gray, hard .....	115	1,200
Limestone, light, hard .....	75	1,275
Limestone, dark, hard .....	155	1,430
Limestone, gray, hard, (water 1,570) .....	140	1,570
Limestone, (water "sand") .....	52 $\frac{1}{2}$	1,622 $\frac{1}{2}$
Total depth .....		1,622 $\frac{1}{2}$

## Log No. 295

Sam R. Armstrong, No. 1, lessor. Caldwell, et al., lessees. Location: Fairdale, Jefferson Co. Casinghead strata: basal Mississippian. Authority: Joseph Howard.

## Strata.

Mississippian System.	Thickness	Depth
Clay and soapstone .....	56	56
Devonian System.		
Shale, black, (sulphur water 145) .....	89	145
Limestone, white .....	23	163
Limestone, white, hard .....	106	274
Silurian System.		
Shale, green .....	37	311
Sand, white .....	19	330
Shale, red, or limestone .....	3	333
Limestone, gray .....	42	375
Limestone, gray, hard .....	12	387
Shale, green .....	4	391
Ordovician System.		
Sand, white, (fresh water) .....	22	413
Limestone, gray .....	18	431
Limestone, white, (fresh water) .....	9	440
Shale, gray, (set 476 ft. 8" casing) .....	35	475
Limestone, white .....	5	480
Shale, gray, and limestone .....	130	610
Limestone, gray .....	290	900
Shale, gray .....	72	972
Limestone, gray, fine .....	138	1,110
Shale, blue, and limestone, white, hard .....	35	1,145
Limestone rock, brown .....	20	1,165
Sand, brown, hard .....	2	1,167
Limestone rock, brown, hard, fine .....	28	1,195
Limestone or shale, gray, hard .....	7	1,202
Sand, brown, hard .....	3	1,205
Limestone rock, brown .....	5	1,210
Shale and limestone, gray, fine .....	15	1,225
Limestone rock, brown .....	30	1,255
Limestone, brown and white .....	5	1,260
Limestone rock, brown, hard .....	11	1,271
Limestone, brown, soft .....	30	1,301
Limestone, brown, soft .....	5	1,306
Limestone, gray and brown .....	140	1,446
Limestone, gray .....	10	1,456
Limestone, gray, fine .....	20½	1,476½

Ordovician System.	Thickness	Depth
Limestone, gray .....	23½	1,500
Limestone, brown .....	25	1,525
Limestone, brown and white .....	5	1,530
Limestone, brown .....	10	1,540
Limestone, dark brown .....	20	1,560
Limestone, light brown and white .....	5	1,565
Limestone, very dark brown .....	5	1,570
Limestone, gray and bluish .....	13	1,583
Limestone, brown, (sample lost) .....	25	1,608
Limestone, gray and bluish .....	77	1,685
Shale, blue, (salt water) .....	5	1,690
Sand, salt water .....	20	1,710
Sand, brown .....	15	1,725
Sand, gray, and rock .....	5	1,730
Total depth .....		1,730

### JESSAMINE COUNTY.

Production: Neither oil or gas. Producing Sands: None recognized.

#### Log No. 296

William Hoover, No. 1, lessor. J. T. Acker, Broadway, Va., and L. C. Wilson, Buffalo, N. Y., lessees, and drillers. Location: ¼ mile south of Nicholasville. Elevation: about 940. Commenced: October 28, 1918. Completed: November 11, 1918. Production: Dry.

#### Strata.

Ordovician System.	Thickness	Depth
Soil .....	13	13
Limestone .....	3	16
Limestone, gray, fine (water 45, 55, 90) ....	578	594
Limestone, hard .....	16	610
Limestone, soft, (sulphur water 702) .....	190	800
Limestone (sand), (black sulphur 820) .....	40	840
Limestone .....	210	1,050
Limestone (sand) .....	30	1,080
Limestone .....	10	1,090
Limestone (sand) .....	60	1,150
Limestone .....	10	1,160
Limestone (sand) .....	10	1,170
Limestone, black .....	30	1,200
Limestone (sand) .....	20	1,220
Limestone .....	35	1,255
Limestone (sand) .....	10	1,265
Limestone .....	110	1,375

## Ordovician System.

## Thickness Depth

Limestone (sand) .....	10	1,385
Limestone .....	40	1,425
Limestone (sand), (water) .....	6	1,431
Limestone .....	23	1,454
Limestone, dark .....	26	1,486
Limestone (sand) .....	20	1,500
Limestone .....	15	1,515
Limestone (sand) .....	23	1,538
Limestone, white .....	20	1,558
Limestone, dark .....	15	1,573
Limestone, real white .....	12	1,585
Sand, white .....	15	1,600
Limestone, brown .....	38	1,638
Limestone .....	42	1,680
Limestone, hard, gritty .....	20	1,700
Limestone, real .....	15	1,715
Pebbles, white .....	5	1,720
Blue water .....	5	1,725
Limestone, white .....	20	1,745
Limestone, black .....	20	1,765
Sand, white .....	20	1,785
Limestone, blue .....	60	1,845
Limestone, blue .....	3	1,848
Limestone, brown .....	12	1,860
Limestone, white .....	13	1,873
Sand, hard .....	8	1,881
Limestone, black .....	14	1,895
Sand, white .....	5	1,900
Limestone, dark .....	15	1,915
Limestone, white .....	13	1,928
Sand, white .....	12	1,940
Limestone, brown .....	15	1,955
Sand, white .....	45	2,000
Limestone, dark .....	25	2,025
Limestone, white .....	25	2,050
Water sand .....	25	2,075
Limestone, hard .....	25	2,100
Sand, white .....	50	2,150
Limestone, dark .....	50	2,200
Sand, white .....	40	2,240
Limestone, brown .....	20	2,260
Limestone, white .....	40	2,300
Limestone, dark .....	35	2,335
Limestone (15 feet), white (sand), (salt water) .....	40	2,375
Limestone, brown .....	25	2,400

Ordovician System.	Thickness	Depth
Limestone, white (sand) .....	25	2,425
Limestone, white (sand) .....	25	2,450
Limestone, brown, (black skim on water) ....	25	2,475
Limestone, white, very hard .....	25	2,500
Sand (25 feet), white, foam (more salt water, strong) .....	50	2,550
Limestone .....	20	2,570
Sand (5 feet) .....	20	2,590
Limestone, hard .....	10	2,600
Limestone, very hard .....	10	2,610
Limestone, hard, (could not make bits stand)	9	2,619
Limestone; black .....	16	2,635
Limestone (sand) .....	15	2,650
Limestone, white .....	10	2,660
Limestone (sand) .....	20	2,680
Limestone, white .....	10	2,690
Limestone, brown .....	10	2,700
Limestone, light .....	8	2,708
Limestone asphalt tar .....	9	2,717
Limestone, brown, sandy .....	7	2,724
Limestone, light .....	11	2,735
Limestone asphalt tar .....	2	2,737
Limestone, brown .....	6	2,743
Limestone, brown, sandy .....	7	2,750
Limestone dark asphalt tar .....	5	2,755
Limestone, white .....	6	2,761
Limestone, brown, sandy .....	5	2,766
Sand, white, (looks like water sand) .....	5	2,771
Sand, white, (looks like water sand) .....	9	2,780
Limestone, brown .....	5	2,785
Limestone, white .....	15	2,800
Shale .....	10	2,810
Limestone, brown .....	70	2,880
Limestone, gray .....	55	2,935
Shale (pencil cave), (caving) .....	8	2,943
Limestone, brown .....	17	2,960
Shale .....	5	2,965
Limestone .....	15	2,980
Shale .....	5	2,985
Limestone, sandy .....	10	2,995
Limestone .....	7	3,002
Shale .....	5	3,007
Limestone .....	6	3,013
Shale .....	10	3,023
Limestone, brown .....	6	3,029
Limestone, pink, shaly, (caving) .....	8	3,037

## Ordovician System.

	Thickness	Depth
Limestone, soft, from 3,031 .....	32	3,069
Shale, pink, (set casing) .....	6	3,075
Limestone, gray, hard .....	6	3,081
Shale, chocolate color, (caving) .....	4	3,085
Limestone, shaly, black .....	36	3,121
Shale, soft, black .....	64	3,185
Total depth .....		3,185

NOTE—The limestone rocks were filled with water from top to bottom and the well was cased about twenty-eight times in an effort to get shut of this water. First 8 in. casing at 475 feet. The drill went through limestone rock at 2,935 feet into shale, at which level the water drained off completely. The lower part of this record is undoubtedly in the upper Cambrian, but the line of demarkation cannot be made because of insufficient data.

## JOHNSON COUNTY.

Production: Oil and Gas. Producing Sands: Big Lime, Big Injun, Wier and Berea (Mississippian).

## Log No. 297

Dan Hitchcock, No. 1, lessor. Ken-Mo Oil & Gas Co., lessee. Location: on headwaters of Barnett's Creek.

## Strata.

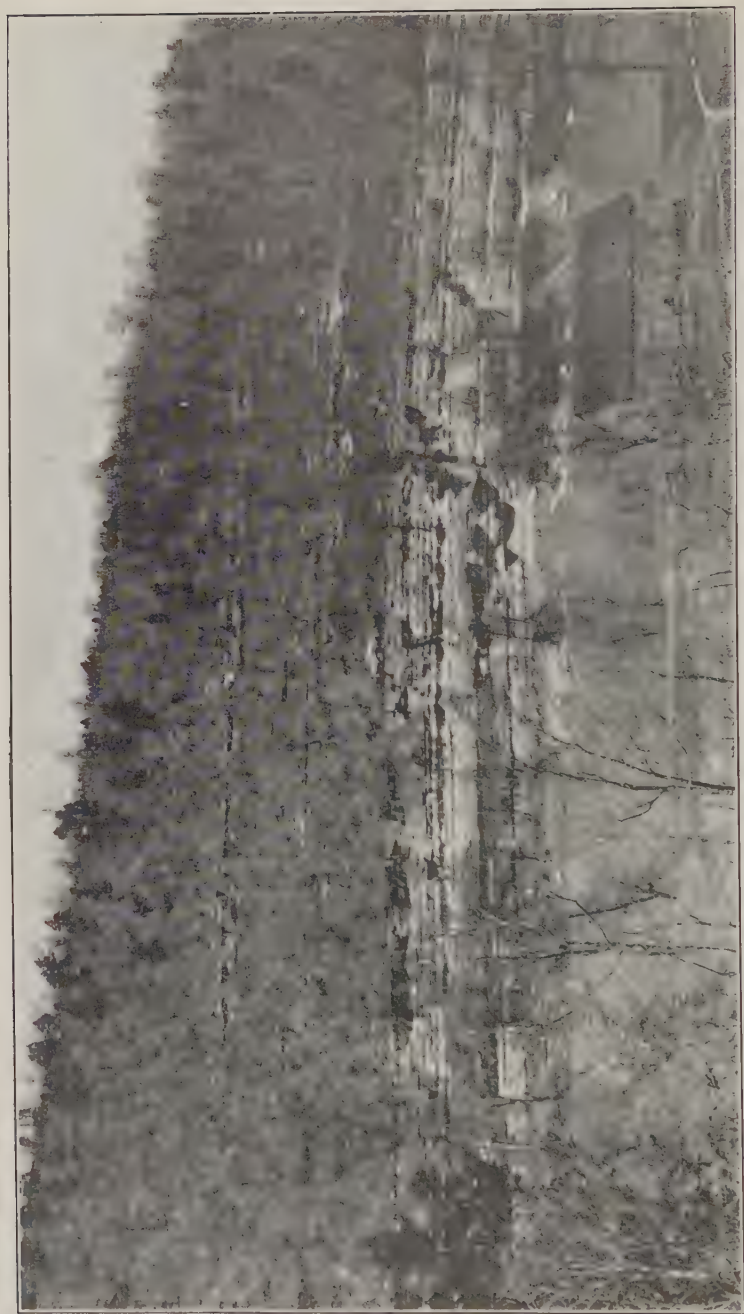
## Pennsylvanian System.

	Thickness	Depth
Soil .....	14	14
Sand .....	41	55
Shale .....	89	130
Sand .....	144	274
Shale .....	157	331
Sand .....	183	514
Shale .....	9	523
Sand .....	17	540
Sand and shale .....	25	565

## Mississippian System.

Limestone, black .....	5	570
Shale, muddy .....	20	590
Limestone (Big Lime) .....	27	617
Shale, break .....	2	619
Limestone .....	58	677
Shale .....	2	679
Sandstone (Big Injun) .....	6	685
Shale .....	165	850
Shale, dark .....	86	936
Shale, white .....	12	948





A KENTUCKY RIVER ANTICLINE.

The view shows a low group of Ordovician Limestones just below the Twin Chimneys, Mercer County, Kentucky River gorge. The axis of this slight fold is nearly north and south.

Mississippian System.	Thickness	Depth
Sand, gas, 200,000 ft. ....	92	1,040
Shale (Sunbury) .....	12	1,052
Sand, soft (Berea) .....	91	1,143
Total depth .....		1,143

NOTE—Not on pump, but shows for small producer.

### Log No. 298

Coon Conley, No. 1, lessor. John G. White, lessee. Location: Head of Pigeon Creek, 1 mile southeast of Win P. O.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil (conductor) .....	16	16
Shale .....	134	150
Sand, gray .....	35	185
Sand, white .....	180	365
Shale .....	115	480
Sand, white .....	50	530
Shale .....	5	535
Sand, black .....	9	544
Limestone (Little Lime) .....	6	550
Shale .....	15	565
Limestone (Big Lime) .....	70	635
Shale (Waverly) .....	75	810
Shale .....	65	875
Sand .....	20	895
Sand, loose .....	28	923
Total depth .....		923

NOTE—Well No. 1 and No. 2 gauged day shot and produced 1½ million feet of gas.

### Log No. 299

Ross Well, No. 1. South West Pet. Co. & Cliff Pet. Co., lessees. Location: Flat Gap P. O. Production: Slight show oil.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Quicksand .....	21	21
Sand, settling .....	64	85
Sand, hard .....	165	250

Pennsylvanian System.	Thickness	Depth
Shale .....	5	255
Sand .....	15	270
Shale .....	30	300
Sand .....	20	320
Shale .....	5	325

## Mississippian System.

Limestone (Little Lime) .....	10	335
Sand, settling, and water .....	40	375
Sandstone (Maxon) .....	10	385
Sand, pink, limestone and shale .....	15	400
Limestone (Big Lime) .....	110	510
Sandstone (Big Injun) .....	25	535
Shale, sandy .....	95	630
Shale .....	35	665
Sand .....	10	675
Shale .....	15	690
Sand .....	30	720
Shale and shell .....	80	800
Shale, black .....	60	860
Top of grit .....	44	904
Limestone and shale .....	61	965
Total depth .....		965

## Log No. 300

George Conley, No. 1, lessor. Bedrock Oil Co., lessee. Location: On Pigeon Fork. Elevation: 936

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	12	12
Shale .....	6	18
Shell .....	6	24
Shale .....	76	100
Sandstone, hard .....	10	110
Shale .....	10	120
Sand .....	225	345
Shale, sandy .....	85	430
Sand .....	30	460

## Mississippian System.

Shells .....	10	470
Limestone (Big Lime) .....	130	600
Limestone, sandy .....	200	800

Mississippian System.		Thickness	Depth
Shale, sandy .....		25	825
Sand (gas at 825) .....		50	875
Shale (gas at 880) .....		5	880
Sand .....		90	970
Shale, black .....		10	980
Limestone, sandy .....		56	1,036
Total depth .....			1,036

**Log No. 301**

Tom Cantrill, No. 1, lessor. Mid South Gas Co., lessee. Location: Hargis Creek. Elevation: 840. Production: 2,000,000 feet gas.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil .....		18	18
Sand .....		6	24
Shale .....		56	80
Sand .....		175	255
Shale .....		125	380
Sand .....		60	440
Shale .....		5	445
Limestone (Little Lime) .....		5	450
Shale .....		25	475
Limestone (Big Lime) .....		90	565
Shale .....		50	615
Limestone, sandy .....		167	782
Sand, gas .....		53	835
Shale .....		10	845
Shells, broken .....		4	849
Total depth .....			849

Blew out mercury 1.

**Log No. 302**

C. H. Williams, No. 1, lessor. Red Bush Syndicate, lessee. Location: Near Red Bush P. O. Elevation: 811.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil and mud .....		30	30
Shale, black .....		40	70
Sand .....		150	220
Shale .....		33	255
Sand, settling .....		48	301

Mississippian System.	Thickness	Depth
Shale .....	7	308
Limestone, black .....	5	313
Shale .....	6	319
Sand .....	7	326
Sand .....	21	347
Limestone, black .....	23	370
Limestone, white .....	100	470
Sand .....	12	482
Shale .....	221	703
Sandstone (Wier) .....	33	736
Shale .....	3	739
Limestone, hard .....	3	742
Shale .....	6	748
Shale and shell .....	6	754
Limestone, hard .....	4	758
Shale .....	39	797
Shale, brown (Sunbury) .....	20	817
Sandstone (Berea) .....	90	907
Shale .....	2	909
Total depth .....		909

**Log No. 303**

A. J. Tackett, No. 4, lessor. Location: Near Win P. O. Elevation: 1125, approx. Production: Oil, 1050-1060. Water, 1065-1075.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	14	14
Sand .....	224	238
Coal .....	1	239
Sand .....	3	242
Shale .....	12	254
Sand .....	215	469
Shale .....	4	473
Coal .....	3	476
Sand .....	58	534
Coal .....	2	536
Sand .....	19	555
Shale .....	45	600
Sandstone, gray, white, black .....	14	614
Shale .....	32	646
Sandstone, gray .....	10	656

Pennsylvanian System.		Thickness	Depth
Sand, settling .....		40	696
Shale, muddy .....		10	706
Sand .....		12	718
Mississippian System.			
Shale .....		7	725
Limestone (Big Lime) .....		84	809
Limestone, light .....		176	985
Limestone, dark .....		50	1,035
Sandstone (Wier) .....		40	1,075
Shale, dark .....		38	1,113
Sand .....		34	1,147
Shale, blue .....		16	1,163
Shale, white .....		24	1,187
Shale, brown (Sunbury) .....		17	1,204
Sandstone (Berea) .....		41	1,245
Shale .....		2	1,247
Total depth .....			1,247

**Log No. 304**

A. J. Tackett, No. 1, lessor. Location: On Hargis Ck., near Win P. O. Elevation: 881.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil .....		40	40
Sandstone, brown .....		10	50
Sand, gray .....		50	100
Shale, blue .....		60	160
Sand, gray .....		70	230
Shale, blue .....		112	342
Sand, white .....		32	374
Shale, blue .....		26	400
Mississippian System.			
Limestone and pencil cave .....		30	430
Limestone (Big Lime), gray and white .....		160	590
Sand, broken .....		70	660
Shale, gray and black .....		108	768
Sand, gray, strong flow gas .....		35	803
Sandstone, broken .....		32	835
Total depth .....			835

**Log No. 305**

A. J. Tackett, No. 3, lessor. Location: Near Win P. O. Elevation: 935? Started: January 17, 1920. Finished: February 11, 1920.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	25	25
Sand, soft .....	83	108
Sand .....	198	306
Shale .....	134	440
Sand, salt .....	55	495
Sand and shale .....	15	510
Shale, mud .....	10	520
Mississippian System.		
Shale .....	11	531
Limestone, (Big Lime) .....	29	560
Limestone, break, (Big Lime) .....	5	565
Limestone (Big Lime) .....	41	606
Sandstone (Big Injun) .....	164	770
Sand, dark, white limestone .....	25	795
Sandstone (Wier), show oil 795 .....	123	918
Total depth .....		918

**Log No. 306**

Eud Conley, No. 3, lessor. Location: Pigeon Creek. Elevation: 945. Commenced: December 19, 1919. Finished: February 6, 1920.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	18	18
Shale .....	22	40
Sand .....	40	80
Shale .....	68	148
Sand .....	92	240
Shale .....	7	247
Sand .....	73	320
Shale .....	95	415
Sand .....	35	450
Shale .....	7	457

Mississippian System.		Thickness	Depth
Limestone, (Little Lime) .....		7	464
Shale .....		18	482
Limestone (Big Lime) .....		108	590
Shale .....		80	670
Shale, sandy .....		60	730
Shale .....		77	807
Sand, gas .....		28	835
Shale .....		16	851
Sand .....		19	870
Shale .....		17	887
Shale .....		15	902
Total depth .....			902

**Log No. 307**

Bud Conley, No. 2, lessor. Location: Pigeon Creek. Elevation: 1020?

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil .....		22	22
Shale .....		136	158
Sand .....		40	198
Shale .....		12	210
Sand .....		135	345
Shale .....		98	443
Sand .....		14	457
Shale .....		15	472
Sand .....		47	519
Shale .....		15	534

## Mississippian System.

Limestone .....	5	539
Shale .....	14	553
Limestone .....	85	638
Shale, sandy .....	137	775
Limestone, sandy .....	71	846
Shale .....	14	860
Sand, gas .....	30	890
Shale .....	7	897
Sand, gas .....	5	902
Shale, sandy .....	56	958
Total depth .....		958



**Log No. 308**

John Cochran, No. 1, lessor. Location: Below mouth Oil Branch at Little Paint Creek. Elevation: 730.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sandstone .....	40	40
Shale .....	90	130
Sand, settling .....	45	175
Shale .....	5	180
Mississippian System.		
Limestone (Little Lime) .....	5	185
Shale (pencil cave) .....	5	190
Limestone (Big Lime) .....	153	343
Shale, green, sandy .....	60	403
Shale, dark, sandy .....	134	537
Sandstone (Wier) .....	21	558
Shale, sandy .....	85	643
Shale (Sunbury) .....	15	658
Sandstone (Berea) .....	18	676
Shale and sandstone .....	39	715
Total depth .....		715
Berea, 60 quarts.		
Wier, 40 quarts.		

**Log No. 309**

Bud Conley, No. 1, lessor. Location: Pigeon Creek. Elevation: 1020 approx.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	8	8
Sand .....	16	24
Sand .....	6	30
Shale .....	102	132
Sand .....	217	349
Shale .....	121	470
Sand .....	45	515

Mississippian System.	Thickness	Depth
Limestone (Little Lime) .....	9	524
Shale (Pencil cave) .....	24	548
Limestone (Big Lime) .....	92	640
Shale, sandy .....	95	735
Limestone, sandy .....	120	855
Shale .....	5	860
Limestone, sandy .....	25	885
Shale .....	17	902
Sand, gas .....	10	912
Shale .....	15	927
Total depth .....		927

**Log No. 310**

Auxier Oil Company, No. 1, lessor. Location: Glade Farm, near Glade's Branch. Started: January 10, 1921. Completed: March 29, 1921. Production: 5 bbls oil. Authority: C. E. Bales.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sandstone .....	130	130
Shale, sandy .....	190	320
Sand, settling .....	107	427
Limestone, black .....	24	451
Sand (Maxon), oil .....	11	462
Limestone (Big Lime) .....	46	508
Limestone, sandy, (Big Lime) .....	18	526
Sandstone, oil (Big Injun) .....	16	542
Sandstone (Big Injun) .....	20	562
Shale, blue, sandy .....	12	574
Shale, black, sandy .....	15	589
Shale, gray, sandy .....	86	675
Sand (Wier), oil .....	40	715
Shale, gray, sandy .....	83	798
Shale .....	100	898
Shale (Sunbury) .....	9½	907½
Sandstone, cap rock .....	3	910½
Sandstone (Berea), oil .....	50	960½
Sandstone, shaly .....	15	975½
Shale, black .....	16	991½
Total depth .....		991½

**Log No. 311**

John Wright, No. 1, lessor. Pulaski-Johnson Oil & Gas Co., lessec.

Location: Near Barn Rock P. O. Started: August 23, 1920. Completed: September 22, 1920. Production: 500,000 cubic feet. Authority: C. E. Bales.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Soil .....	50	50
Sandstone, dark .....	130	180
Sandstone, white .....	65	245
Shale, white .....	10	255
Limestone .....	20	275
Sandstone, white .....	40	315
Shale, blue .....	40	355
<b>Mississippian System.</b>		
Limestone, blue .....	35	390
Limestone (Big Lime), gas 430-431, 470-475	125	515
Shale, white .....	35	550
Limestone, blue, and shale .....	100	650
Sandstone, soft .....	70	720
Shale, blue .....	22	742
Sand (Wier), gas 747-750 .....	33	775
Shale, blue .....	5	780
Limestone, blue .....	30	810
Shale, white .....	5	815
Shale, black .....	7	822
Limestone, blue .....	53	875
Shale, black .....	50	925
Shale, black .....	58	983
Total depth .....		983

**Log No. 312**

A. J. Spradlin, No. 1, lessor. Location: Hargis Creek. Elevation: 905. Drilled: April 18, 1919.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Soil .....	15	15
Shale, blue .....	50	65
Sand, salt, water at 230 .....	175	240
Shale, black .....	110	350

Mississippian System.	Thickness	Depth
Limestone, black .....	17	367
Sand (Maxon), oil .....	36	403
Shale, black .....	6	409
Limestone (Little Lime), white .....	18	427
Shale, black (Pencil Cave) .....	17	444
Limestone (Big Lime), gray .....	142	586
Shale .....	20	606
Sandstone, (Big Injun) .....	110	716
Shale, blue .....	18	734
Sandstone (Squaw), gas at 746 .....	52	786
Shale, blue .....	38	824
Sandstone (Wier), gas .....	8	832
Limestone, dark, gritty .....	18	850
Shale, black, hard .....	7	857
Shale, brown (Sunbury) .....	23	880
Total depth .....		880

**Log No. 313**

A. J. Spradlin, No. 2, lessor. Location: Hargis Creek. Elevation: 1095.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	12	12
Sandstone, lard .....	48	60
Shale .....	75	135
Sand .....	25	160
Shale .....	90	250
Sand .....	190	440
Shale .....	105	545
Sand .....	57	602
Shale .....	3	605
Shale, shelly .....	8	613
Shale .....	8	621
Shale, shelly .....	3	624
Shale .....	26	650

## Mississippian System.

Limestone (Big Lime) .....	80	730
Shale, sandy .....	95	825
Limestone, sandy .....	95	920
Shale, sandy .....	51	971
Sand, gas .....	45	1,016

Mississippian System.	Thickness	Depth
Shale, sandy .....	34	1,050
Sand, gas .....	33	1,083
Shale .....	40	1,123
Shale (Sunbury) .....	18	1,141
Sandstone (Berea) .....	19	1,160
Limestone, sandy .....	18	1,178
Total depth .....		1,178

**Log No. 314**

A. J. Spradlin, No. 3, lessor. Location: Hargis Creek.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	25	25
Sand .....	30	55
Shale .....	51	106
Sand .....	14	120
Shale .....	25	145
Sand .....	255	400
Shale .....	6	406
Shale, muddy .....	12	418
Shale .....	82	500
Sand .....	50	550

## Mississippian System.

Limestone, dark, sandy .....	37	587
Shale, muddy (pencil cave) .....	19	606
Limestone (Big Lime) .....	60	666
Sand and shale .....	3	669
Limestone .....	7	676
Sand, blue .....	184	860
Limestone shell .....	40	900
Limestone and shale .....	36	936
Sand (some gas) .....	40	976
Shale, hard .....	25	1,001
Sand .....	17	1,018
Shale, white .....	28	1,046
Limestone, brown, hard .....	9	1,055
Shale, blue .....	15	1,070
Shale, brown (Sunbury) .....	17	1,087
Sandstone (Berea) .....	44	1,131
Shale and shell .....	14	1,145
Total depth .....		1,145

**Log No. 315**

A. J. Spradlin, No. 4, lessor. Location: Hargis Creek. Elevation: 980.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	13	13
Sandstone .....	25	38
Shale, sandy .....	32	70
Shale .....	15	85
Shale, hard .....	28	113
Sandstone, (show oil 248-768; little water 256-268) .....	174	287
Shale .....	131	418
Sand, settling .....	47	465
Shale .....	3	468

## Mississippian System.

Limestone (Little Lime), mud and shale .....	18	486
Shale, muddy .....	16	502
Limestone (Big Lime) .....	72	574
Sandstone (Big Injun) .....	181	755
Sand, shaly .....	70	825
Sand (Wier), gas at 16-30 feet .....	38	863
Shale .....	48	911
Total depth .....		911

**Log No. 316**

A. J. Spradlin, No. 5, lessor. Location: Hargis Creek. Elevation: 1095.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	20	20
Sand .....	20	40
Shale .....	90	130
Sand .....	20	150
Shale .....	100	250
Sand .....	197	447
Shale .....	123	570
Sand .....	57	627

Mississippian System.	Thickness	Depth
Limestone (Big Lime) .....	96	723
Shale, sandy .....	95	818
Limestone, sandy .....	96	914
Shale, sandy .....	55	969
Sand (Wier), gas .....	46	1,015
Shale .....	15	1,030
Total depth .....		1,030

**Log No. 317**

A. J. Spradlin, No. 6, lessor. Location: Hargis Creek. Elevation: 1020.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	16	16
Shale .....	39	55
Sandstone .....	47	102
Shale, sandy, mud .....	48	150
Sandstone .....	25	175
Shale .....	10	185
Sandstone .....	170	355
Shale .....	134	489
Sandstone .....	59	548

## Mississippian System.

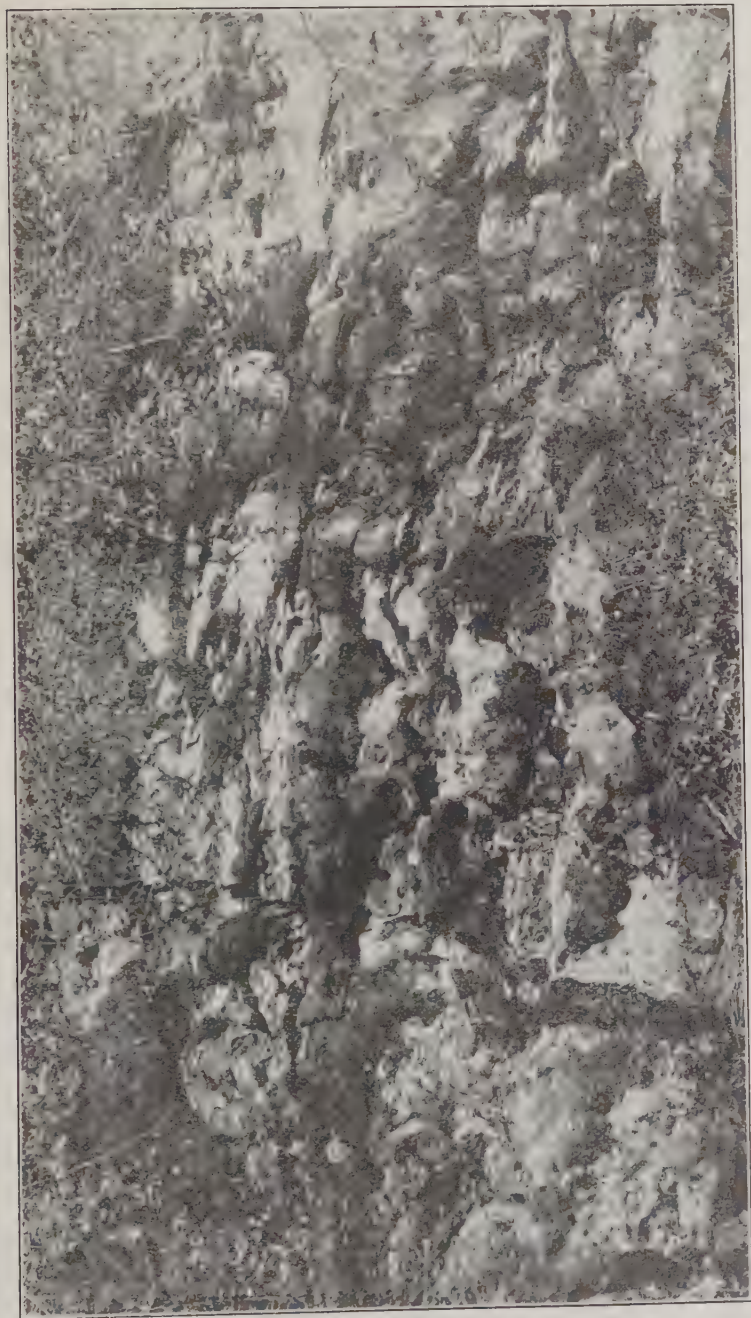
Limestone (Little Lime) .....	32	580
Limestone (Big Lime) .....	27	607
Shale .....	10	617
Limestone (Big Lime) .....	33	650
Sand, shaly .....	8	658
Sand, shaly .....	172	830
Sand, dark .....	30	860
Total depth .....		860

**Log No. 318**

A. J. Spradlin, No. 7, lessor. Location: Hargis Creek. Elevation: 1,000 feet. Started: September 30, 1919. Completed: October 21, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	18	18
Shell, hard .....	5	23



IRREGULARLY CEMENTED POTTSVILLE SANDS.

The Pottsville Sands of Western Kentucky are thick ideal oil "sands" surrounded by thick bituminous shales. This outcrop occurs south of Sebree, on the Sim Sutton farm, Webster County, on the south limb of the Rough Creek Anticline.



Pennsylvanian System.	Thickness	Depth
Clay, soft, caving .....	5	28
Shale, shelly .....	4	32
Shale .....	38	70
Sand .....	23	93
Salt .....	1	94
Sand .....	3	97
Coal .....	3	100
Shale .....	3	103
Sand .....	194	297
Sandstone, salt water .....	3	300
Shale, muddy .....	14	314
Shale .....	89	403
Sand (salt water) .....	47	450
Shale .....	12	462
Sandstone .....	5	467
Shale .....	7	474

## Mississippian System.

Limestone .....	4	478
Shale .....	3	481
Sand .....	2	483
Shale, muddy (Pencil Cave) .....	12	495
Limestone (Big Lime) .....	65	560
Shale, Injun blue .....	175	735
Shale .....	91	826
Sandstone (Wier) .....	33	859
Shale .....	27	886
Sand .....	15	901
Shale, black, and shell .....	23	924
Total depth .....		924

Water at 285 and 425.

Show black oil at 220.

Little gas close to top and bottom.

**Log No. 319**

A. J. Spradlin, No. 8, lessor. Location: Hargis Creek. Elevation: 1100.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	15	15
Sand .....	23	38
Shale .....	65	103

Pennsylvanian System.		Thickness	Depth
Sand	.....	21	124
Shale	.....	35	159
Sand	.....	56	215
Shale (oil 200-220)	.....	14	229
Sand	.....	36	265
Coal	.....	1½	266½
Sand	.....	51½	318
Shale	.....	2	320
Sand (oil 345)	.....	106	426
Shale	.....	54	480
Sand	.....	9	489
Shale	.....	83	572
Sand, settling	.....	43	615
Coal	.....	1	616
Sand	.....	6	622
Shale	.....	5	627
Sand	.....	5	632

## Mississippian System.

Limestone	.....	5	637
Limestone	.....	17	654
Limestone	.....	74	728
Shale	.....	162	890
Total depth	.....		890

## Log No. 320

H. M. Rice, No. 2, lessor. Emden Oil Company, lessee. Location: Near Barnett's Creek, at mouth of Grassy Fork of Barnett's Creek. Started: October 26, 1920. Completed: February 19, 1921. Production: 6 bbls. oil. Authority: C. E. Bales.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil	.....	115	115
Sandstone	.....	255	370
Sand, settling	.....	76	446

## Mississippian System.

Limestone (Big Lime)	.....	115	561
Shale, dark	.....	356	917
Sandstone (Wier), oil	.....	12	929
Shale, dark	.....	2	931
Sandstone (Wier), oil	.....	19½	950½
Shale, hard	.....	8	958½
Total depth	.....		958½

**Log No. 321**

David Conley, No. 1, lessor. Mid-South Oil Co. (D. T. Evans, Pres., Huntington W. Va.) lessee. Location: on Litteral Fork, Mg. Co. Elevation: 960. Commenced: May 17, 1920. Completed: June 12, 1920.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	20	20
Clay and shale .....	26	46
Sandstone, very hard .....	9	55
Coal .....	4	59
Shale, hard .....	126	182
Sand .....	42	224
Shale and clay .....	2	226
Sand .....	164	390
Shale and clay .....	61	451
Sand .....	35	486
Shale and clay .....	4	490
Mississippian System.		
Limestone .....	10	500
Shale .....	22	522
Limestone, very hard .....	5	527
Shale (Pencil Cave) .....	19	546
Limestone (Big Lime) .....	54	600
Shale .....	210	810
Shale, dark .....	56	866
Sandstone (Wier) .....	43	909
Sand, oil 22' pay at top .....	27	936
Shale, dark .....	12	948
Sand, gas at top .....	13	961
Total depth .....		961

**Log No. 322**

Lindsay Conley, No. 1, lessor. Eastern Imperial Co., lessee. Location:  $\frac{1}{4}$  mile southeast of I. G. Rice farm well by church and school-house,  $2\frac{1}{2}$  miles northwest of Paintsville. Completed: May, 1919. Production: 1 bbl. oil natural, and good flow of gas.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	50	50
Shale, bluish .....	12	62
Sandstone and shale .....	390	452

Mississippian System.		Thickness	Depth
Limestone (Big Lime) .....		98	540
Shale, grayish .....		275	815
Shale, blue .....		75	890
Shale (Sunbury) .....		25	915
Sandstone (Berea), shale streaks .....		80	995
Shale .....		5	1,000
Total depth .....			1,000

NOTE—The 75 feet above recorded as shale, blue, is the correct position of the Wier sand, which evidently was not recognized by the drillers.

### Log No. 323

Andy Jayne, No. 1, lessor. Gibson Petroleum Co., lessee. Location: near Forks of Big Paint Creek, 1 mile south of Elna P. O.

#### Strata.

Pennsylvanian System.		Thickness	Depth
Soil .....		10	10
Sandstone (Mountain), oil show .....		60	70
Shale .....		100	170
Sand, settling .....		60	230
Shale .....		10	240
Mississippian System.			
Limestone (Little Lime) .....		10	250
Shale (pencil cave) .....		10	260
Limestone (Big Lime), gas .....		100	360
Sandstone, shale, oil show .....		100	460
Shale, black .....		40	500
Shale .....		30	530
Sandstone (Big Injun), oil show .....		80	610
Shale, black .....		22	632
Total depth .....			632

### Log No. 324

I. G. Rice, No. 1, lessor. Va.—Ky. Oil Co., lessee. Location:  $\frac{1}{4}$  mile above Paint Creek on Ruel Branch  $2\frac{1}{2}$  miles northwest of Paintsville. Elevation: 625 approx. Production: Estimated at 4 bbls. oil. Drilled in June 11, 1920.

#### Strata.

Pennsylvanian System.		Thickness	Depth
Soil .....		25	25
Shale, bluish .....		8	33
Sandstone .....		375	408

Mississippian System.	Thickness	Depth
Limestone (Big Lime) .....	90	498
Shale, bluish .....	175	673
Shale, red .....	10	683
Shale, gray .....	106	789
Sandstone .....	8	797
Shale, bluish .....	75	872
Shale (Sunbury) .....	18	890
Sandstone (Berea) .....	30	920
Total depth .....		920
Shot 60 qts, 15 bbls.		
Salt water bailed off.		

**Log No. 325**

Jesse Stafford, No. 1, lessor. Nitro Oil & Gas Co., Huntington, W. Va., lessee. Location: on North Fork of Paint Creek, 3 miles west of Paintsville. Completed: June 25, 1918. Production: 1 barrel oil.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Soil .....	20	20
Shale .....	18	38
Sandstone .....	380	418

**Mississippian System.**

Limestone (Big Lime) .....	102	520
Shale, bluish .....	175	695
Shale, grayish .....	110	805
Sandstone .....	4	809
Shale, bluish .....	40	849
Shale (Sunbury) .....	11	860
Sandstone (Berea) .....	60	920
Total depth .....		920

**Log No. 326**

Jesse Lyons, No. 1, lessor. Keaton Oil Co., lessee. Location:  $\frac{1}{4}$  mile up Keaton Creek from Blaine Creek, on right hand side. Production: 38 barrels oil.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Sandstone, (35 ft. below surface a heavy flow of water) .....	202	202
Sand .....	167	369

## Mississippian System.

	Thickness	Depth
Limestone (Big Lime), salt water .....	148	517
Sandstone (Big Injun) .....	7	524
Shale .....	210	734
Sandstone .....	6	740
Shale, blue .....	36	776
Sandstone (Wier), 38 bbls. oil .....	42	818
Total depth .....		818

## Log No. 327

Jesse Lyons, No. 2, lessor. Practically the same as Log No. 1. No. 1 produces 38 bbls., and No. 2, is estimated to produce about the same. No. 2 located slightly below No. 1 on Keaton Creek.

## Log No. 328

Joe Hamilton, No. 1, lessor. Wheeler-Watkins Co., lessee. Location: on Mine Fork just above the mouth of Little Paint Creek. Authority: J. J. Baker.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Soil .....	30	30
Shale, blue .....	35	65
Sand (show oil) .....	30	95
Shale and sand .....	51	146
Sand, dark .....	6	152

## Mississippian System.

Limestone (Big Lime) .....	53	205
Sand, gray (Keener), show oil .....	165	370
Shale .....	35	405
Sand, dark gray (Big Injun), gas .....	50	455
Shale, blue .....	12	467
Sand (Squaw), some gas .....	12	479
Shale .....	36½	515½
Sand, gray (Wier), some oil .....	24	539½
Sand, dark .....	5	544½
Shale, dark, sandy .....	20	564½
Sandstone .....	15	579½
Shale .....	21½	601
Shale (Sunbury) .....	25	626
Sandstone (Berea) .....	61	687
Total depth .....		687

**Log No. 329**

Joe Hamilton, No. 2, lessor. Wheeler-Watkins Oil Co., lessee.  
Location: on Mine Fork just above the mouth of Little Paint Creek.

## Strata.

Pennsylvanian and Mississippian Systems.	Thickness	Depth
Sandstones, shales, and limestones .....	504	504
Sandstone (Wier) .....	40	544
Shale and sand, broken .....	91	635
Sandstone (Berea) .....	54	689
Total depth .....		689

NOTE—This record is very incomplete, but is reported to have been practically the same as J. H. No. 1 above the Wier sand.

**Log No. 330**

H. M. Rice, No. 1, lessor. Emden Oil Company, lessee. Location: on Road Fork of Barnett's Creek, about 2 miles N. E. of Oil Springs, and 8 miles west of Paintsville. Started: Aug. 1, 1920. Completed: Sept. 28, 1920. Initial Production: 15 bbls. oil. Authority: C. E. Bales.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	8	8
Sandstone (oil show 75 in.) .....	487	495
Mississippian System.		
Limestone (Big Lime), strong gas .....	100	595
Sandstone, shaly, green to gray .....	349	944
Sandstone ("Berea Grit"), oil .....	25	969
Shale and sandstone .....	46	1,015
Total depth .....		1,015

**Log No. 331**

Will Turner, No. 1, lessor. Mid-South Oil Co., lessee. Location: Little Mine. Elevation: 860 approx.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	12	12
Shale .....	14	26
Sand, gray .....	20	46
Limestone, brown .....	12	58
Shale, blue .....	75	133
Sand, gray .....	84	217
Shale, gray .....	50	267
Sandstone (Maxon), white .....	65	332

Mississippian System.	Thickness	Depth
Limestone, gray, dark .....	63	395
Shale, green (pencil cave) .....	5	400
Limestone Big Lick, white .....	82	482
Shale, green .....	26	508
Sand, gray .....	15	523
Shale, sandy .....	4	527
Shale (Waverly) .....	97	624
Shale, light gray .....	100	724
Sand Wier, gray, hard .....	56	780
Shale, brown (Sanbury) .....	10	790
Sand, gray (Berea) .....	66	856
Devonian System.		
Shale, white and black (Chattanooga) .....	269	1,125
Limestone sandy, light brown (Corniferous)..	85	1,210
Limestone, light red .....	180	1,390
Limestone, gray, hard .....	20	1,410
Shale gray blue and green .....	40	1,450
Limestone, blue, hard .....	30	1,480
Limestone, gray and light brown .....	85	1,565
Limestone, light blue, hard .....	65	1,630
Limestone dark gray .....	80	1,710
Limestone, black granitic .....	20	1,730
Limestone, blue .....	40	1,770
Limestone, blue, hard .....	20	1,790
Shale, big red .....	205	1,995
Total depth .....		1,995

NOTE—This is a very poorly kept record, especially in its lower part.

#### PARTIAL RECORDS.

##### Log No. 332

Felix Fyffe, No. 1, lessor. Location: Big Lick. Production: Gas, 500,000 ft. Commenced: August 1916. Completed: April, 1917. Depth to sand, 638. Total depth, 672. Feet sand, 64.

##### Log No. 333

A. M. Lyon, No. 1, lessor. Union Oil & Gas Co., lessee. Location: Big Lick. Production: Gas, 500,000 ft. Commenced: May, 1917. Completed: Aug., 1917. Depth to sand, 605. Total depth, 645. Feet sand, 40. Not shot.



**Log No. 334**

A. M. Lyon, No. 2, lessor. Location: Big Lick. Production: Gas, 250,000 ft. Commenced: Sept., 1917. Completed: Oct., 1917. Depth to sand, 705. Total depth, 755. Feet sand, 50.

**Log No. 335**

Steve Fyffe, No. 2, lessor. Location: Big Lick. Production: Gas, 500,000 ft. Commenced: Oct., 1918. Completed: Nov., 1918. Depth to sand, 760. Total depth, 800. Feet sand, 40.

**Log No. 336**

Henry Fyffe, No. 3, lessor. Location: Big Lick. Production: Gas, 300,000 ft. Commenced: July, 1919. Completed: Sept. 3, 1919. Depth to sand, 730. Total depth, 768. Feet sand, 38.

**Log No. 337**

A. M. Lyon, No. 3, lessor. Location: Big Lick. Production: Gas, 300,000 ft. Commenced: Oct., 1919. Completed: Dec. 19, 1919. Depth to sand, 650. Total depth, 690. Feet sand, 40. Not shot.

**Log No. 338**

Jim Evans, No. 1, lessor. Location: Upper Laurel Creek. Production: Gas, 250,000 feet. Commenced: Aug. 6, 1919. Completed: Sept. 19, 1919. Depth to sand, 635. Total depth, 666. Feet sand, 31. Not shot.

**Log No. 339**

Jim Evans, No. 2, lessor. Location: Upper Laurel Creek. Production: Gas, 250,000 ft. Commenced: Sept. 28, 1918. Completed: Oct. 22, 1919. Depth to sand, 678. Total depth, 718. Feet sand, 40. Not shot.

**Log No. 340**

J. S. Young, No. 1, lessor. Location: Upper Laurel Creek. Commenced: Dec., 1918. Completed: Jan. 28, 1920. Depth to sand, 664. Total depth, 700. Feet sand, 36.

# CHAPTER V.

## KNOTT COUNTY.

Production: Oil and Gas. Producing Sands: Pottsville (Pennsylvanian);  
Maxton and Big Lime (Mississippian).

Log No. 341

Greenville Sloan, No. 1, lessor. Ohio Fuel Oil Co., lessee. Location: 2 miles from mouth of Caney Creek of Right Beaver Creek. Completed: September 15, 1914. Authority: The Eastern Petroleum Co.

Strata.		Thickness	Depth
Pennsylvanian System.			
Sandstone .....		18	18
Shale, sandy .....		12	30
Shale, hard .....		10	40
Coal .....		3	43
Shale, hard, and shells .....		57	100
Sandstone .....		60	160
Shale, hard, and shells .....		60	220
Coal .....		2	222
Shale, hard .....		18	240
Shale, hard, gray .....		15	255
Shale, hard, and shells .....		57	312
Sandstone, (gas show 312) .....		23	335
Shale, hard, and shells .....		60	395
Sandstone .....		105	500
Shale, hard, and shells .....		150	650
Sandstone .....		110	760
Shale, hard .....		80	840
Shale, sandy .....		45	885
Shale, hard .....		55	940
Sandstone (salt water 995) .....		120	1,060
Shale, hard .....		15	1,075
Sandstone, white (gas 1080, 1,000,000 feet)..		30	1,105
Shale, hard .....		25	1,130
Shale, hard, limy .....		12	1,142
Shale, hard, and shells .....		16	1,158
Sandstone .....		12	1,170
Shale, hard .....		5	1,175
Sandstone (salt sand), (small gas 1195 to 1205, show of oil 1238, 1 bailer salt water per hour at 1255) .....		95	1,270
Shale, hard, and shells .....		70	1,340

Mississippian System.	Thickness	Depth
Sandstone, (a little gas 1340) .....	10	1,350
Shale, hard, and shells .....	76	1,426
Total depth .....		1,426

Hole plugged at 435 and 1335 feet.

NOTE—This record principally in the Pottsville. The Maxton sand should be near the 10 feet of sandstone above 1350 feet in depth.

### Log No. 342

Joseph Hall, No. 1, lessor. Location: Mouth of Dry Creek of Right Beaver Creek. Casing head: 801 feet A. T. Completed: October 13, 1904. Authority: The Eastern Gulf Oil Co.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	18	18
Sandstone, gray (fresh water) .....	10	28
Shale hard .....	92	120
Sandstone (fresh water) .....	8	128
Shale, hard .....	112	240
Sandstone .....	35	275
Shale, hard, shelly .....	105	380
Sandstone, white .....	24	404
Shale, hard, shelly, (little gas 435-440) .....	41	445
Shale, hard, black .....	85	530
Sandstone, gray .....	220	750
Shale, hard, black .....	60	810
Sandstone, gray .....	75	885
Shale, hard, black .....	65	950
Sandstone, gray (salt water 981) .....	40	990
Shale, hard, pebble shell .....	12	1,002
Sandstone, white (salt water 1123) .....	153	1,155
Coal .....	5	1,160
Sandstone (salt water flooded hole 1190) ....	83	1,243
Shale, hard .....	12	1,255
Sandstone .....	8	1,263

#### Mississippian System.

Shale, hard .....	27	1,290
Sandstone (Maxon), (oil at 1390 to 1396) ..	108	1,398
Shale, hard, limy .....	39	1,437
Limestone .....	10	1,447
Shale, hard, limy .....	31	1,478

Mississippian System.		Thickness	Depth
Sand, limy .....	22	1,500	
Limestone (Big Lime) .....	178	1,678	
Sandstone, reddish (Big Injun) .....	14	1,692	
Sandstone, white, fine (Big Injun) .....	29	1,721	
Shale, red .....	34	1,755	
Shale, hard, black .....	93	1,848	
Total depth .....		1,848	

### KNOX COUNTY.

Production: Oil and Gas. Producing Sands: Pottsville (Pennsylvanian);  
Maxton, Big Lime and Big Injun (Mississippian).

#### Log No. 343

Jim Walker, No. 1, lessor. E. J. Wyrick, No. 1, lessee. Location:  
On Omandas Branch of the road fork of Stinking Creek. Commenced:  
January, 1920. Completed: March 31, 1920. Authority: The As-  
sociated Producers Oil Co.

#### Strata.

Pennsylvanian System.		Thickness	Depth
Soil .....	47	47	
Sand, white .....	10	57	
Shale, blue, hard .....	103	160	
Shale, hard, sandy .....	40	200	
Shale, blue, hard .....	100	300	
Shale, dark, hard .....	20	320	
Shale, blue, hard .....	20	340	
Shale, hard, and limestone shells .....	70	410	
Shale, hard .....	20	430	
Shale, black, hard .....	35	465	
Shale and limestone shells, hard .....	35	500	
Shale, blue, hard .....	10	510	
Shale, black, hard .....	25	535	
Shale, limy, sandy .....	10	545	
Sandstone (salt sand), white, (oil 550 and 830) .....	515	1,060	
Shale, limy, black, hard .....	10	1,070	
Shale, blue, hard .....	10	1,080	
Sand, white (Beaver) .....	175	1,255	
Shale, limy, hard .....	10	1,265	
Shale, black, hard .....	5	1,270	
Shale, gray, limy .....	10	1,280	
Shale, black, hard .....	5	1,285	
Sand, white (oil) .....	75	1,360	
Shale, gray, limy .....	10	1,370	

Mississippian System.	Thickness	Depth
Shale, red, sandy .....	50	1,420
Shale, red, shelly .....	20	1,440
Shale, red, limy .....	5	1,445
Sand, blue (Maxon) .....	55	1,500
Limestone, red .....	5	1,505
Shale, red, sandy .....	15	1,520
Sand, white (Maxon) .....	55	1,575
Shale, black, hard .....	40	1,615
Limestone (Little Lime), dark .....	105	1,720
Shale (pencil cave) .....	3	1,723
Limestone (Big Lime), white .....	127	1,850
Sand, white, (Big Injun) .....	70	1,920
Sandstone, red, hard, (Big Injun) .....	10	1,930
Shale, red, sandy, (Big Injun) .....	15	1,945
Sand, red, (Big Injun) .....	50	1,995
Limestone, blue, (Big Injun) .....	5	2,000
Shale, hard, and limestone shells .....	100	2,100
Devonian System.		
Shale, black (Chattanooga) .....	344	2,444
Limestone (Irvine sand), (1st 10 feet gritty, then mostly limestone, gas 2449) .....	53	2,497
Silurian System.		
Limestone .....	20	2,517
Shale, hard, and limestone shells .....	60½	2,577½
Total depth .....		2,577½

**Log No. 344**

North Jellico Coal Co., lessor. Louisville Cement Co., lessee. Location: Near Wilton, Knox Co., Ky.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Shale, sandy .....	17	17
Coal .....	.8	17.8
Shale, sandy .....	4.4	22
Sandstone .....	42.8	64.8
Coal .....	.11	65.7
Shale, dark .....	.11	66.6
Sandstone .....	2	68.6
Sandstone, dark .....	73.6	142
Sandstone .....	2	144

## Pennsylvanian System.

## Thickness Depth

Shale, soft .....	6	150
Shale, dark .....	44.4	194.4
Coal .....	.10	195.2
Shale, dark .....	3.10	199
Sand shale .....	3	202
Shale, dark .....	6	208
Sandstone, shale parting .....	57	265
Shale, dark .....	20	285
Sand shale .....	25	310
Shale, dark .....	44.4	354.4
Coal .....	.2	354.6
Sand shale .....	41.6	396
Coal .....	1.6	397.6
Sandstone and shale .....	12.6	410
Shale, dark .....	1	411
Sandstone .....	80.3	491.3
Coal .....	.6	491.9
Sand shale .....	3.3	495
Sandstone .....	92	587
Shale, dark .....	21	608
Sandstone .....	87	695
Shale, black .....	2.10	697.10
Coal .....	2.4	700.2
Coal and shale mixed .....	1.8	701.10
Sandstone, shale partings .....	25.2	727
Sandstone .....	47	774
Sandstone conglomerated .....	6	780
Sandstone .....	103	883
Shale, sandy .....	10	893
Shale, dark .....	7	900
Sandstone .....	4	904
Shale, sandy .....	18	922
Shale, dark .....	2	924
Limestone, sandy .....	5	929
Shale, dark .....	1	930
Sandstone .....	11.4	941.4
Coal .....	.3	941.7
Shale, gray .....	1.11	943.6
Shale, sandy .....	12.6	956
Limestone, sandy .....	3	959
Shale .....	7	966
Limestone, sandy .....	3	969
Shale, gray .....	4	973
Sandstone, shaly .....	11	984
Shale, dark .....	4	988

Pennsylvanian System.	Thickness	Depth
Shale, sandy .....	2	990
Shale, blue .....	7	997
Shale, black .....	3	1,000
Total depth .....		1,000

NOTE—This well finished in the Pottsville, but is undoubtedly close to the top of the Mississippian Series.

## LAUREL COUNTY.

Production: Oil and Gas. Producing Sand: Corniferous (Devonian).

### Log No. 345

Hiram Watkins, No. 1, lessor. Atlanta Oil & Gas Co., lessee.  
Location:  $\frac{1}{4}$  mile from Atlanta P. O. Production: Dry; well abandoned.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	1	1
Clay .....	4	5
Shale .....	6	11
Sand (show of coal) .....	10	21
Shale .....	15	36
Sand, shale and coal .....	6	42
Sand .....	100	142
Shale .....	6	148
Coal .....	2	150
Shale, brown .....	140	290
Sand .....	55	345
Shale, white .....	3	348
Coal show .....	2	350

#### Mississippian System.

Limestone and shale .....	15	365
Limestone .....	20	385
Limestone, blue .....	5	390
Limestone, white, and shale .....	5	395
Shale .....	7	402
Shale and limestone .....	7	409
Shale, pink, and limestone .....	4	413
Limestone and shale .....	13	426
Shale, pink .....	35	461
Shale, white .....	10	471
Shale, blue .....	20	491
Limestone .....	6	497

Mississippian System.	Thickness	Depth
Limestone .....	7	504
Shale, white .....	6	510
Limestone, blue and gray .....	45	555
Limestone, brown .....	7	562
Limestone, (oil at 705) .....	143	705
Limestone, soft .....	61	766
Shale .....	12	778
"Sand," green (New Providence) .....	15	793
Devonian System.		
Shale, brown (Chattanooga) .....	47	840
Limestone "sand," (oil show) .....	60	900
Shale, gray and blue, with white noles .....	200	1,100
Limestone black .....	135	1,235
Shale, white .....	69	1,304
Limestone, red, and sand .....	13	1,317
Shale .....	17	1,343
Total depth .....		1,343

NOTE—The Devonian-Silurian contact occurs in the 60 feet of limestone above 900 feet, the Silurian-Ordovician contact in the 200 feet just above 100 feet. The well finished in the Ordovician.

## LAWRENCE COUNTY.

Production: Oil and Gas. Producing Sands: Pottsville (Pennsylvanian), Wier and Berea (Mississippian).

### Log No. 346

L. S. Alley, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Lower Louisa Township. Commenced: May 1, 1919. Completed: June 14, 1919. Production:  $2\frac{1}{2}$  bbls. per day after shot.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	12	12
Shale .....	83	95
Sand .....	145	240
Shale .....	45	285
Sand .....	24	310
Coal .....	2	312
Shale .....	298	610
Coal .....	5	615
Shale .....	75	690
Salt sand, (water 720) .....	130	820
Shale, white .....	30	850
Second sand .....	160	1,010
Shale and mud .....	20	1,030



Mississippian System.	Thickness	Depth
Limestone (Big Lime) .....	145	1,175
Sandstone (Big Injun) .....	90	1,265
Shale (break) .....	5	1,270
Limestone .....	50	1,320
Shale and shell .....	388	1,708
Shale, brown (Sunbury) .....	20	1,728
Sandstone (Berea) .....	26½	1,754½
Total depth .....		1,754½

**Log No. 347**

L. S. Alley, No. 3, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: September 5, 1919. Completed: October 6, 1919. Production: 2½ bbls. daily. Well shot October 10, 1919, 30 qts.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Sub-soil and mud .....	40	40
Sand .....	40	80
Shale .....	120	200
Sand, buff .....	80	280
Shale .....	60	340
Limestone .....	22	362
Shale .....	38	400
Sand .....	75	475
Shale .....	30	505
Limestone .....	35	540
Shale and shells .....	110	650
Sand (salt), (water 675) .....	175	825
Shale and shells .....	115	940

**Mississippian System.**

Sandstone (Maxon) .....	23	963
Shale (pencil cave) .....	2	965
Limestone (Big Lime) .....	150	1,115
Sandstone (Big Injun) .....	84	1,199
Shale and shells .....	451	1,650
Shale, brown (Sunbury) .....	28	1,678
Sandstone (Berea) .....	26	1,704
Total depth .....		1,704

## Log No. 348

L. S. Alley, No. 3, lessor Ohio Fuel Oil & Gas Co., lessee. Commenced: November 3, 1919. Completed: December 3, 1919. Shot December 3, 90 qts. Production: 2 bbls. per day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sub-soil .....	13	13
Shale .....	47	60
Sand .....	50	110
Shale .....	125	235
Sand .....	25	260
Shale .....	350	610
Sand .....	60	670
Shale .....	15	685
Sand .....	75	760
Shale .....	20	780
Sand .....	30	810
Shale .....	15	825
Sand .....	95	920
Shale .....	25	945
Sand .....	15	960
Shale .....	10	970

## Mississippian System.

Limestone (Little Lime) .....	20	990
Shale (pencil cave) .....	2	992
Limestone (Big Lime) .....	148	1,140
Sand .....	20	1,160
Shale .....	2	1,162
Sand .....	58	1,220
Shale .....	462	1,682
Shale, brown (Sunbury) .....	25	1,707
Sand (Berea). (pay 1,707-1,726) .....	22	1,729
Total depth .....		1,729

## Log No. 349

L. S. Alley No. 6, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: January 20, 1920. Completed: February 21, 1920. Shot Feb. 23, 1920, 80 qts. Production: 4 bbls. per day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sub-soil .....	15	15
Sand .....	15	30
Shale .....	20	50

Pennsylvanian System.		Thickness	Depth
Sand	.....	30	80
Shale	.....	10	90
Sand	.....	40	130
Shale	.....	15	145
Sand	.....	15	160
Shale	.....	400	560
Sand	.....	175	735
Shale	.....	40	775
Sand	.....	135	910
Shale	.....	20	930
Mississippian System.			
Limestone (Big Lime)	.....	160	1 090
Sandstone (Big Injun)	.....	122	1,212
Shale	.....	2	1,214
Shale and shell	.....	439	1,653
Shale, brown (Sunbury)	.....	23	1,676
Sand (Berea), (pay 1,677-1,697)	.....	25	1,701
Total depth	.....		1,701

**Log No. 850**

W. F. Austin, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Lower Louisa Township. Commenced: April 7, 1919. Completed: May 6, 1919. Shot May 10, 1919, 60 qts.

## Strata.

Pennsylvanian System.		Thickness	Depth
Sub-soil	.....	4	4
Sand	.....	24	28
Coal	.....	2	30
Shale	.....	5	35
Sand	.....	15	50
Coal	.....	3	53
Sand	.....	25	78
Shale	.....	7	85
Sand	.....	8	93
Shale	.....	52	145
Sand	.....	40	185
Shale	.....	50	235
Sand	.....	35	270
Shale	.....	60	330
Sand	.....	20	350
Shale	.....	15	365

Pennsylvanian System.		Thickness	Depth
Sand	.....	13	378
Shale	.....	37	415
Sand	.....	17	432
Shale	.....	8	440
Sand	.....	25	465
Shale and shells	.....	55	520
Sand	.....	55	575
Shale	.....	3	578
Sand (salt)	.....	122	700
Shale and shells	.....	40	740
Sand	.....	25	765
Mud	.....	3	768
Sand	.....	62	830
Shale	.....	3	833
Mississippian System.			
Sand (Maxon)	.....	12	845
Shale and mud	.....	23	868
Shale (pencil cave)	.....	4	872
Limestone (Big Lime)	.....	148	1,020
Clay, white	.....	3	1,023
Sandstone (Big Lujan)	.....	112	1,135
Shale	.....	3	1,138
Limestone	.....	77	1,215
Shale and shells	.....	370	1,585
Shale, brown (Sunbury)	.....	24	1,609
Sand (Berea)	.....	24	1,633
Total depth	.....		1,633

## Log No. 351

W. F. Austin, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: August 6, 1919. Completed: September 5, 1919. Shot September 5, 1919, 30 qts. Production: 5 bbls. per day:

## Strata.

Pennsylvanian System.		Thickness	Depth
Sub soil	.....	7	7
Shale, hard	.....	7	14
Mud	.....	44	58
Sand	.....	7	65
Coal	.....	2	67
Shale	.....	18	85
Sand	.....	115	200

Pennsylvanian System.	Thickness	Depth
Shale and shell .....	115	315
Sand .....	25	340
Mud .....	35	375
Sand, shelly .....	115	490
Shale .....	110	600
Shells .....	55	655
Sand (salt) .....	25	680
Shale (break) .....	3	683
Sand, (big water) .....	217	900
Shells .....	45	945
Shale, black .....	5	950

## Mississippian System.

Limestone (Little Lime) .....	5	955
Shale (pencil cave) .....	5	960
Limestone (Big Lime) .....	160	1,120
Sandstone (Big Injun) .....	90	1,210
Shale and shells .....	444	1,654
Shale, brown (Sunbury) .....	20	1,674
Sand (Berea), (pay 1st 10 feet) .....	22	1,696
Total depth .....		1,696

## Log No. 352

W. F. Austin, No. 3, lessor. Ohio Fuel & Gas Co., lessee. Commenced: October 10, 1919. Completed: November 12, 1919. Shot November 13, 1919, 40 qts. Production: 5 bbls. per day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sub-soil .....	12	12
Shale hard .....	6	18
Shale .....	17	35
Mud .....	25	60
Sand .....	50	110
Shale .....	40	150
Sand .....	90	240
Shale .....	20	260
Sand .....	60	320
Shale .....	40	360
Sand .....	220	580
Mud .....	20	600
Sand .....	40	640
Shale, (big water) .....	35	675

Pennsylvanian System.		Thickness	Depth
Sand (salt) .....		110	785
Mud, black .....		65	850
Sand .....		105	955
Mississippian System.			
Shale (pencil cave) .....		4	959
Limestone (Big Lime) .....		160	1,119
Sandstone (Big Injun) .....		80	1,199
Shale and shell .....		471	1,670
Shale, brown (Sunbury) .....		20	1,690
Sand (Berea), (pay first 10 feet) .....		21	1,711
Total depth .....			1,711

**Log No. 353**

W. F. Austin, No. 4, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: December 27, 1919. Completed: January 29, 1920. Shot January 30, 1920, 40 qts. Production: 4 bbls. per day.

## Strata.

Pennsylvanian System.		Thickness	Depth
Sub-soil .....		3	3
Sandstone .....		12	15
Shale soft .....		140	155
Sandstone, buff .....		30	185
Shale, soft .....		5	190
Sandstone .....		20	210
Shale .....		40	250
Sandstone .....		15	265
Shale, soft .....		10	275
Sandstone, white .....		15	290
Shale .....		10	300
Sandstone .....		40	340
Sandstone, shelly .....		5	345
Sandstone .....		30	375
Shale .....		25	400
Sandstone .....		10	410
Coal .....		2	412
Shale .....		3	415
Sandstone .....		10	425
Shale, soft .....		25	450
Coal .....		7	457
Shale, soft .....		13	470
Sandstone .....		10	480

Pennsylvanian System.	Thickness	Depth
Shale .....	65	545
Shale, black, caving .....	5	550
Shale .....	35	585
Sandstone .....	74	659
Shale and shells .....	61	720
Sandstone (salt) .....	120	840
Shale, muddy .....	45	885
Sand (salt) .....	65	950
Shale .....	10	960
Sandstone .....	10	970

## Mississippian System.

Limestone .....	5	975
Sand (Maxon) .....	20	995
Limestone (Little Lime), black .....	18	1,013
Shale (pencil cave) .....	5	1,018
Limestone (Big Lime) .....	155	1,073
Sandstone (Big Injun) .....	105	1,178
Shale and shells .....	459	1,637
Shale, brown (Sunbury) .....	24	1,661
Sand (Berea), (pay from 1,757 to 1,767) ....	20 <sup>1</sup> / <sub>2</sub>	1,681 <sup>1</sup> / <sub>2</sub>
Total depth .....		1,681 <sup>1</sup> / <sub>2</sub>

## Log No. 354

R. Blankenship, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee.  
 Location: 2½ miles northwest of Busseyville. Commenced: September  
 9, 1913. Completed: October 28, 1913. Shot November 7, 1913, 30  
 quarts. Production: Pumping water.

## Strata.

Pennsylvanian System.	Thickness	Depth
Gravel .....	52	52
Sand .....	108	160
Shale .....	110	270
Coal .....	8	278
Shale .....	122	400
Sand .....	35	435
Shale .....	80	515
Sand (salt) .....	15	530
Shale .....	170	700
Sand .....	35	735
Shale .....	65	800
Limestone, black .....	15	815

Mississippian System.		Thickness	Depth
Sand (Maxon) .....		35	850
Shale .....		15	865
Limestone (Big Lime) .....		175	1,040
Shale .....		5	1,045
Sandstone (Big Injun) .....		30	1,075
Shale .....		5	1,080
Sand .....		55	1,135
Shale and shell .....		422	1,557
Shale, brown (Sunbury) .....		20	1,577
Sand (Berea) .....		53	1,630
Shale .....		4	1,634
Total depth .....			1,634

**Log No. 355**

Raish Blankenship, No. 3, lessor. Ohio Fuel Oil & Gas Co., lessee.  
(Partial Record).

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil .....		20	20
Shale .....		40	60
Sandstone .....		50	110
Shale .....		25	135
Sandstone .....		40	175
Shale .....		110	285
Sandstone .....		35	320
Shale and shells .....		70	390
Sandstone .....		25	415
Shale .....		95	510
Sandstone .....		20	530
Shale .....		35	565
Sandstone .....		170	735
Shale .....		10	745
Sandstone .....		145	890
Shale .....		5	895
Sandstone .....		15	910
Shale .....		5	915
Mississippian System.			
Sandstone (Maxon) .....		20	935
Shale .....		10	945
Limestone (Big Lime) .....		135	1,080
Sandstone .....		85	1,165
Shale .....		15	1,180
Incomplete at .....			1,180



## Log No. 356

Well not completed when recorded.

Arthur Blankenship, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee.  
Commenced: June 6, 1917. Completed: July 3, 1917. Production: 3  
bbls. per day. Shot July 5, 1917, 100 quarts. After shot, 4 bbls per  
day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Shale, soft .....	40	40
Shale .....	50	90
Sandstone .....	95	185
Shale .....	115	300
Sandstone .....	50	350
Shale .....	70	420
Sandstone .....	20	440
Shale .....	40	480
Sandstone .....	20	500
Shale .....	50	550
Sandstone .....	25	575
Shale .....	55	630
Sandstone .....	60	690
Shale .....	30	720
Sandstone (water 800) .....	210	930
Shale .....	20	950
Sandstone .....	85	1,035
Shale .....	35	1,070
Sandstone .....	10	1,080
Shale .....	10	1,090

## Mississippian System.

Limestone (Big Lime) .....	145	1,235
Sandstone (Big Injun) .....	115	1,350
Shale and shell .....	440	1,790
Shale, brown (Sunbury) .....	31	1,821
Sandstone (Berea), (oil) .....	37½	1,858½
Total depth .....		1,858½

## Log No. 357

A. Blankenship, No. 3, lessor. Ohio Fuel Oil & Gas Co., lessee.  
Commenced: November 15, 1919. Completed: March 10, 1920. Shot  
March 11, 1920, 60 quarts. Production: 3 bbls per day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	10	10
Mud .....	25	35
Shale .....	20	55
Sand .....	10	65
Shale .....	40	105
Sand .....	95	200
Shale .....	115	315
Sand .....	50	365
Shale .....	70	435
Sand .....	20	455
Shale .....	40	495
Sand .....	20	515
Shale .....	50	565
Sand .....	25	590
Shale .....	55	645
Sand .....	60	705
Shale .....	30	735
Sand, (water 820) .....	215	950
Shale .....	15	965
Sand .....	85	1,050
Shale .....	35	1,085

## Mississippian System.

Sand (Maxon) .....	10	1,095
Shale .....	10	1,105
Limestone (Big Lime) .....	145	1,250
Sandstone (Big Injun) .....	115	1,365
Shale and shells .....	461	1,826
Shale, brown (Sunbury) .....	24	1,850
Sandstone (Berea), (pay 1850-1865) .....	22	1,872
Total depth .....		1,872

**Log No. 358**

Arthur Blankenship, No. 6, lessor. Ohio Fuel Oil & Gas Co., lessee.  
Commenced: March 29, 1920. Completed: April 28, 1920. Well shot  
April 28, 1920, 60 qts. Production: 6 bbls. per day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay .....	60	60
Shale and shell .....	180	240
Coal .....	2	242
Shale, (water 250) .....	8	250
Mountain sand .....	60	310
Shale and shell .....	470	780
Sand (salt), (water) .....	175	955
Shale .....	57	1,012

## Mississippian System.

Sand (Maxon) .....	58	1,070
Shale and shells .....	45	1,115
Limestone (Big Lime) .....	140	1,255
Sandstone (Big Injun) .....	135	1,390
Shale and shell .....	430	1,820
Shale, brown (Sunbury) .....	21	1,841
Sandstone (Berea), (pay 1,846-1,859) .....	18	1,859
Total depth .....		1,859

**Log No. 359**

T. H. Burchett, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee.  
Commenced: January 7, 1914. Completed: February 7, 1914. Shot  
February 12, 1914, 150 qts. Well first produced 5 bbls. in 24 hrs.  
Production: 2 bbls. oil per day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Gravel .....	15	15
Sand .....	10	25
Shale .....	75	100
Sand .....	13	113
Coal .....	3	116
Shale .....	129	245
Sand .....	30	275
Shale .....	70	345
Coal .....	5	350

Pennsylvanian System.	Thickness	Depth
Shale .....	130	480
Sand .....	40	520
Shale .....	160	680
Shell sand .....	50	730
Shale .....	15	745
Sand, (hole full of water) .....	130	875
Shale .....	45	920

## Mississippian System.

Sand (Maxon) .....	40	960
Shale .....	30	990
Limestone (Little Lime), black .....	12	1,002
Limestone (Big Lime) .....	208	1,210
Shale .....	5	1,215
Sandstone (Big Injun) .....	93	1,308
Shale and shell .....	400	1,708
Shale, brown (Sunbury) .....	20	1,728
Sandstone (Berea) .....	52	1,780
Shale .....	2	1,782
Total depth .....		1,782

## Log No. 360

Thos. H. Burchett, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee.  
 Commenced: January 25, 1916. Completed: February 22, 1916. Shot:  
 February 22, 1916, 120 qts. Production: 2 bbls. oil per day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	16	16
Sandstone .....	109	125
Shale .....	70	195
Sandstone .....	100	295
Shale .....	70	365
Coal .....	3	368
Shale .....	77	445
Limestone .....	40	485
Shale .....	35	520
Sandstone .....	70	590
Shale .....	30	675
Shale and shells .....	75	750
Sand (salt) .....	180	930
Shale and shell .....	75	1,005

Mississippian System.	Thickness	Depth
Sand (Maxon) .....	30	1,035
Shale .....	18	1,053
Shale (pencil cave) .....	3	1,056
Limestone (Big Lime) .....	152	1,208
Sandstone (Big Injun) .....	89	1,297
Shale and shells .....	419	1,716
Shale, brown (Sunbury) .....	24	1,740
Sand (Berea), (pay 1,742-1,769) .....	50	1,790
Total depth .....		1,790

**Log No. 361**

Thos. H. Burchett, No. 3, lessor. Ohio Fuel Oil & Gas Co., lessee.  
Commenced: March 11, 1916. Completed: April 6, 1916. Shot April  
14, 1916, 120 qts. Production: 4 bbls. oil per day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	16	16
Sandstone .....	133	149
Shale .....	70	219
Sandstone .....	100	319
Shale .....	70	389
Coal .....	3	392
Shale .....	77	469
Limestone .....	40	509
Shale .....	35	544
Sandstone .....	70	614
Shale .....	55	669
Shale .....	30	699
Shale and shell .....	75	774
Sand (salt) .....	180	954
Shale and shells .....	75	1,029

## Mississippian System.

Sand (Maxon) .....	30	1,059
Shale .....	18	1,077
Shale (pencil cave) .....	3	1,080
Limestone (Big Lime) .....	152	1,232
Sandstone (Big Injun) .....	89	1,321
Shale and shells .....	419	1,740
Shale, brown (Sunbury) .....	24	1,764
Sand (Berea), (pay 1,764-1,791) .....	45	1,809
Total depth .....		1,809

**Log No. 362**

Thos. H. Burchett, No. 5, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: December 8, 1919. Completed: January 28, 1920. Shot: January 29, 1920, 40 qts. Production: 5 bbls. oil per day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	9	9
Shale and shells .....	231	240
Sand, buff .....	100	340
Shale and shells .....	385	725
Sand .....	75	800
Shale .....	30	830
Sand (salt) .....	165	995
Shale .....	25	1,020

## Mississippian System.

Sand (Maxon) .....	30	1,050
Shale (pencil cave) .....	30	1,080
Limestone (Big Lime) .....	180	1,260
Sandstone (Big Injun) .....	98	1,358
Shale .....	5	1,363
Sandstone .....	40	1,403
Shale .....	404	1,807
Sand (Berea), (pay 1,808-1,818) .....	20	1,827
Total depth .....		1,827

**Log No. 363**

J. C. Short, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: July 30, 1917. Completed: Sept. 1, 1917. Shot: Sept. 4, 1917, 100 qts. Production:  $\frac{3}{4}$  bbl. per day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	40	40
Shale and shells .....	160	200
Sandstone, buff .....	50	250
Shale .....	70	320
Shale, hard .....	58	378
Shale and shells .....	82	460
Sandstone .....	60	520
Shale and shells .....	255	775
Sandstone (salt), (water flood 800) .....	135	910
Shale and shells .....	40	950

Mississippian System.	Thickness	Depth
Sandstone (Maxon) .....	70	1,020
Shale .....	45	1,065
Sandstone (Maxon) .....	14	1,079
Shale (pencil cave) .....	1	1,080
Limestone (Big Lime) .....	160	1,240
Sandstone (Big Injun) .....	85	1,325
Shale and shells .....	463	1,788
Shale, brown (Sunbury) .....	20½	1,808½
Sandstone (Berea), (oil 1,833) .....	34½	1,843
Total depth .....		1,843

**Log No. 364**

J. C. Short, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: Sept. 21, 1917. Completed: Oct. 24, 1917. Shot: Oct. 26, 1917, 60 qts. Production: 3 bbls. oil per day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	8	8
Clay .....	12	20
Sandstone .....	20	40
Shale, soft .....	35	75
Shale, hard .....	20	95
Shale, red, sandy .....	45	140
Shale .....	75	215
Sandstone .....	65	280
Shale and shells, (little water 310) .....	120	400
Sandstone .....	75	475
Shale, black .....	10	485
Shale, dark .....	45	530
Shale, black .....	60	590
Sandstone (Cow Run) .....	50	640
Shale, black .....	40	680
Limestone, sandy .....	45	725
Shale, (big water 780) .....	5	730
Sandstone (salt) .....	150	880
Shale, black .....	25	905
Sand, (gas) .....	20	925
Shale, white .....	105	1,030

## Mississippian System.

Limestone (Big Lime) .....	160	1,190
Sandstone (Big Injun) .....	107	1,297
Shale and shells .....	459	1,756
Shale, brown (Sunbury) .....	20	1,776
Sandstone (Berea) .....	29	1,805
Total depth .....		1,805

## Log No. 365

J. C. Short, No. 3, lessor. Ohio Fuel Oil & Gas Co., lessor. Commenced: Feb. 17, 1919. Completed: March 20, 1919. Shot: March 24, 1919, 60 qts. Production: 3 bbls. per day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	14	14
Sandstone .....	6	20
Shale .....	70	90
Coal .....	2	92
Shale .....	58	150
Sandstone .....	65	215
Shale .....	55	270
Shale, hard .....	30	300
Shale .....	40	340
Sandstone .....	60	400
Shale .....	30	430
Sandstone .....	60	490
Shale .....	60	550
Shale, hard .....	50	600
Shale and shells .....	130	730
Sandstone (salt) .....	145	875
Shale and shells .....	125	1,000

## Mississippian System.

Sandstone (Maxon) ..	10	1,010
Shale .....	7	1,017
Shale (Pencil Cave) ..	3	1,020
Limestone (Big Lime) ..	170	1,190
Sandstone (Big Injun) ..	90	1,280
Sandstone and shale, hard ..	51	1,331
Shale and shells .....	389	1,720
Shale, brown (Sunbury) ..	25	1,745
Sandstone (Berea) .....	11	1,756
Sand and shale .....	5	1,761
Sand and shale, (1st oil 1,745) ..	15	1,776
Total depth .....		1,776



## Log No. 366

Jas. Short, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: near Louisa. Commenced: Apr. 19, 1917. Completed: May 17, 1917. Shot: May 18, 1917, 100 qts. Production:  $2\frac{1}{2}$  bbls. per day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	30	30
Shale, red, sandy .....	188	218
Coal .....	2	220
Shale .....	30	250
Sandstone .....	55	305
Coal .....	3	308
Shale .....	144	452
Sandstone .....	28	480
Shale .....	40	520
Clay, (little gas) .....	3	523
Shale .....	17	540
Shale, shelly .....	20	560
Sandstone .....	25	585
Shale .....	90	675
Sandstone .....	75	750
Shale .....	30	780
Shale, shelly and sandy .....	25	805
Shale .....	2	807
Sandstone (salt), (water) .....	153	960
Shale, shelly .....	70	1,030
Sandstone .....	20	1,050
Shale .....	40	1,090

## Mississippian System.

Sandstone (Maxon) .....	15	1,105
Shale .....	2	1,107
Limestone, gritty .....	27	1,134
Shale (pencil cave) .....	2	1,136
Limestone (Big Lime) .....	145	1,281
Sandstone (Big Injun) .....	119	1,400
Shale and shells .....	425	1,825
Shale, brown (Sunbury) .....	20	1,845
Sandstone (Berea) .....	35	1,880
Total depth .....		1,880

**Log No. 367**

Jas. Short, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: Nov. 21, 1917. Completed: Jan. 9, 1918. Shot: Jan. 15, 1918, 100 qts. Very small show of oil, small well after shot. Production: 3 bbls. well.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, shale, soft .....	45	45
Shale .....	135	180
Coal .....	3	183
Sandstone, buff .....	67	250
Shale .....	75	325
Sandstone .....	85	410
Shale and shells .....	90	500
Shale, shelly .....	157	657
Shale and shells .....	80	737
Shale, hard .....	50	787
Shale (break) .....	3	790
Sandstone (salt) .....	150	940
Shale .....	2	942
Sandstone .....	60	1,002
Mississippian System.		
Shale and shell .....	68	1,070
Sandstone (Maxon) .....	18	1,088
Shale (pencil cave) .....	2	1,090
Limestone (Big Lime) .....	150	1,240
Sandstone (Big Injun) .....	100	1,340
Shale .....	5	1,345
Limestone .....	40	1,385
Shale and shells .....	407	1,792
Shale, brown (Sunbury) .....	20	1,812
Sandstone (Berea) .....	37	1,849
Total depth .....		1,849

**Log No. 368**

Jas. Short, No. 3, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: June 2, 1920. Completed: June 26, 1920. Shot: June 28, 1920, 60 qts. Production: 4 bbls. oil per day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	8	8
Shale .....	52	60

Pennsylvanian System.	Thickness	Depth
Sandstone .....	45	105
Shale, blue .....	15	120
Sandstone, (water 125) .....	35	155
Shale, blue, and shell, (water flood 300) ....	300	455
Sandstone (cow run) .....	15	470
Shale, blue .....	90	560
Sandstone (salt) .....	200	760
Shale, blue .....	40	800
Sandstone .....	45	845
Shale, blue .....	40	885
Mississippian System.		
Sandstone (Maxon) .....	15	900
Shale (pencil cave) .....	5	905
Limestone (Big Lime) .....	140	1,045
Sandstone (Big Injun) .....	75	1,120
Shale, blue .....	5	1,125
Shale, shelly .....	35	1,160
Shale, blue, and shells .....	8	1,168
Shale, black .....	422	1,590
Sandstone .....	8	1,598
Shale, brown (Sunbury) .....	21	1,619
Sandstone (Berea), (pay 1,620-1,638) .....	23	1,642
Total depth .....		1,642

### Log No. 369

Mollie Burton, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: near Twin Branch. Commenced: June 4, 1919. Completed: July 3, 1919. Shot: July 4, 1919, 60 qts. Production: Gas well, 200,000 ft.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	20	20
Sandstone .....	80	100
Shale .....	20	120
Sandstone .....	25	145
Shale (water) .....	150	295
Coal .....	4	299
Shale .....	101	400
Shale and shells .....	280	680
Sandstone (salt) .....	195	875
Shale .....	40	915

## Mississippian System.

	Thickness	Depth
Limestone (Big Lime) .....	160	1,075
Sandstone (Big Injun) .....	82	1,157
Shale and shells .....	462	1,619
Shale, brown (Sunbury) .....	16	1,635
Sand (Berea) .....	36	1,671
Total depth .....		1,671

## Log No. 370

Joe Carter, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: Feb. 18, 1920. Completed: Apr. 30, 1920. Shot: May 1, 1920, 60 qts. Production:  $1\frac{1}{2}$  bbls. per day, 20 ft. in sand.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Clay .....	13	13
Shale and shells .....	51	64
Shale, hard .....	11	75
Shale and shell .....	25	100
Coal .....	1	101
Shale .....	18	119
Shale, hard .....	6	125
Shale and shells .....	95	220
Sandstone, buff .....	100	320
Shale and shells .....	50	370
Shale, hard .....	10	380
Shale .....	20	400
Shale and shells, (show gas) .....	320	720
Sandstone .....	20	740
Shale .....	20	760
Shale, hard .....	10	770
Shale .....	20	790
Shale, hard .....	20	810
Sandstone (salt), (hole full gas and water) ..	110	920
Shale .....	5	925
Sandstone .....	20	945
Shale .....	5	950
Shale, hard .....	20	970
Shale .....	20	990
Sandstone .....	30	1,020

## Mississippian System.

Limestone .....	10	1,030
Sand (Maxon) .....	30	1,060
Shale, black .....	15	1,075

Mississippian System.	Thickness	Depth
Shale (pencil cave) .....	3	1,078
Limestone (Big Lime) .....	202	1,280
Sandstone (Big Injun) .....	50	1,330
Shale and sandstone .....	100	1,430
Shale .....	170	1,600
Sandstone and limy shells .....	100	1,700
Shale .....	75	1,775
Shale, black (Sunbury) .....	18	1,793
Sandstone (Berea) .....	20	1,813
Total depth .....		1,813

**Log No. 371**

Elizabeth Pigg, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee.  
 Location: Busseyville District. Commenced: Oct. 4, 1912. Completed:  
 Oct. 28, 1912. Shot: October 28, 1912, 60 qts. Production: 3 bbls.  
 per day.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Clay .....	30	30
Shale .....	50	80
Sandstone .....	50	130
Shale .....	120	250
Sandstone .....	45	295
Shale .....	45	340
Sandstone .....	60	400
Shale .....	160	560
Sandstone (salt) .....	240	800
Shale .....	15	815
Sandstone .....	130	945
Mississippian System.		
Limestone (Little Lime), black .....	10	955
Limestone (Big Lime), white .....	165	1,120
Shale (break) .....	15	1,135
Sandstone (Big Injun) .....	65	1,200
Shale, shelly .....	360	1,560
Shale .....	19	1,579
Sandstone (Berea) .....	16	1,595
Shale (break) .....	14	1,609
Sandstone (Berea) .....	23	1,632
Shale .....	13	1,645
Total depth .....		1,645

## Log No. 372

Elizabeth Pigg, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee.  
Commenced: Dec. 26, 1912. Completed: Jan. 18, 1913. Production:  
3 bbls. per day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sand .....	120	120
Shale .....	60	180
Sand .....	45	225
Shale .....	255	480
Sand .....	60	540
Shale .....	50	590
Sand (salt) .....	350	940
Shale .....	40	980

## Mississippian System.

Limestone (Big Lime) .....	120	1,100
Shale .....	20	1,120
Sandstone (Big Injun) .....	60	1,180
Shale .....	295	1,475
Limestone, shelly .....	105	1,580
Shale .....	23	1,603
Sandstone (Berea) .....	62	1,665
Total depth .....		1,665

## Log No. 373

Elizabeth Pigg, No. 3, lessor. Ohio Fuel Oil & Gas Co., lessee.  
Commenced: Aug. 1, 1917. Completed: Aug. 23, 1917. Shot: Aug.  
27, 1917, 60 qts. Production: 2½ bbls. oil.

## Strata.

Pennsylvanian System.	Thickness	Depth
Shale soft .....	12	12
Sandstone .....	8	20
Shale and shells .....	485	505
Sandstone .....	30	535
Shale, shelly .....	65	600
Sand (salt), (water 610) .....	131	731
Sand (salt) .....	149	880
Shale .....	5	885
Sand (salt) .....	65	950
Shale .....	1	951

Mississippian System.	Thickness	Depth
Sandstone .....	3	954
Shale .....	1	955
Limestone (Little Lime) .....	5	960
Limestone (Big Lime) .....	125	1,085
Sandstone (Big Injun) .....	50	1,135
Shale and shells .....	443	1,578
Shale, brown (Sunbury) .....	20	1,598
Sandstone (Berea), (oil) .....	12	1,610
Shale (break) .....	3	1,613
Sandstone (Berea) .....	17	1,620
Sandstone and shale .....	10	1,630
Total depth .....		1,630

**Log No. 374**

Elizabeth Pigg, No. 4, lessor. Ohio Fuel Oil & Gas Co., lessee.  
 Commenced: Nov. 29, 1917. Completed: Jan. 12, 1918. Shot: Jan.  
 14, 1918, 60 qts. Production: 3 bbls. oil.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Soil .....	9	9
Surface and shale .....	36	45
Sandstone .....	35	80
Shale .....	5	85
Sandstone .....	5	90
Shale .....	25	115
Sandstone .....	33	148
Shale, soft .....	10	158
Sandstone .....	15	173
Shale and shell .....	67	240
Coal .....	4	244
Shale, soft .....	6	250
Sandstone .....	60	310
Shale, shelly .....	80	390
Sandstone .....	15	405
Shale .....	125	530
Sandstone .....	6	536
Shale .....	54	590
Shale, hard .....	22	612
Shale and shells .....	3	615
Sand (salt) .....	320	935
Shale .....	6	941

## Pennsylvanian System.

	Thickness	Depth
Shale, hard .....	5	946
Shale .....	4	950
Sandstone .....	30	980

## Mississippian System.

Shale .....	2	982
Limestone (Big Lime) .....	140	1,122
Sandstone (Big Injun) .....	60	1,182
Shale .....	50	1,232
Sandstone, fine, hard .....	55	1,287
Shale, shelly .....	185	1,472
Sandstone, fine, hard .....	15	1,487
Shale, shelly .....	115	1,602
Shale, brown (Sunbury) .....	25	1,627
Sandstone (Berea) .....	7	1,634
Shale .....	2	1,636
Sand and shale .....	14½	1,650½
Total depth .....		1,650½

## Log No. 375

Lornad Adams, No. 1, lessor. Ohio City Gas Co., lessee. Location: Sand Branch. Production: Dry hole.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Soil .....	20	20
Shale, hard, white .....	10	30
Coal .....	5	35
Limestone, blue .....	30	65
Shale .....	5	70
Sandstone .....	20	90
Shale .....	20	110
Sandstone .....	130	240
Shale .....	10	250
Sandstone .....	25	275
Shale .....	40	315
Sandstone (salt) .....	130	445
Shale .....	30	475
Sandstone .....	5	480
Shale .....	40	520
Sandstone .....	55	575
Shale .....	5	580



Mississippian System.	Thickness	Depth
Sandstone (Maxon) .....	65	645
Shale .....	60	705
Limestone (Little Lime) .....	77	782
Limestone (Big Lime), (show gas 936) .....	154	936
Sandstone (Big Injun), (water 937) .....	45	981
Shale .....	172	1,153
Sandstone (Wier) .....	30	1,183
Shale .....	145	1,328
Sandstone, gritty .....	5	1,333
Shale and shell .....	71	1,404
Shale, brown (Sunbury) .....	17	1,421
Sandstone (Berea) .....	47	1,468
Shale (break) .....	20	1,488
Sandstone (Berea) .....	19	1,507
Total depth .....		1,507

### Log No. 376

H. H. Gambill, No. 1, lessor. Location: near Blaine. Completed: July 15, 1904. Production: Dry. Well plugged and abandoned. Authority: The New Domain Oil & Gas Co.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Gravel, loose .....	69	69
Sandstone, hard, fine .....	50	119
Sandstone, hard, white .....	200	319
Shale, black, soft .....	45	364
Sandstone, hard, white .....	10	374
Shale, black, soft .....	25	399
Sandstone, blue, hard .....	56	455
Sandstone, hard .....	18	473

#### Mississippian System.

Limestone (Big Lime), hard .....	117	590
Shale, soft .....	320	910
Shale, hard, black, soft .....	20	930
Sandstone, hard .....	60	990
Sand, soft .....	20	1,010
Shale, hard, white .....	20	1,030
Shale, black, soft (Chattanooga) .....	420	1,450
Shale, red, sandy .....	45	1,495
Shale, black, hard .....	15	1,510
Shale, white, hard .....	30	1,540

Mississippian System.		Thickness	Depth
Shale, black, hard .....	10	1,550	
Shale white, hard .....	90	1,640	
Limestone, soft .....	16	1,656	
Limestone, hard .....	10	1,666	
Limestone, soft .....	5	1,671	
Silurian System.			
Limestone, hard .....	100	1,771	
Limestone, soft .....	20	1,791	
Limestone, hard .....	94	1,885	
Total depth .....		1,885	

**Log No. 377**

J. H. Grambill, No. 1, lessor. Location: on Spring Branch. Commenced: Apr. 20, 1920. Completed: June 12, 1920. Production: Approx. 40 bbls. oil.

## Strata.

Pennsylvanian and Mississippian Systems.		Thickness	Depth
Sandstone, shale and limestone .....	629	629	
Sandstone (stray), (oil show) .....	17	646	
Shale .....	40	686	
Sand (Wier) .....	37	723	
Shale .....	9	732	
Total depth .....		732	

**Log No. 378**

Jim Bartlett, No. 1, lessor. Holt Shannon Oil Co., lessee. Location: near Irad. Completed: in 1912.

## Strata.

Pennsylvanian System.		Thickness	Depth
Sandstone .....	55	55	
Shale .....	5	60	
Coal .....	3	63	
Shale .....	7*	70	
Coal .....	5	75	
Shale .....	50	125	
Sandstone .....	25	150	
Shale .....	52	202	

Pennsylvanian System.		Thickness	Depth
Sandstone .....		40	242
Shale .....		43	285
Sandstone .....		10	295
Shale .....		55	350
Sandstone .....		20	370
Shale .....		20	390
Sandstone (salt) .....		70	460
Shale (break) .....		10	470
Sandstone .....		10	480
Shale .....		44	524
Sandstone (salt), (salt water flood 524) .....		111	635
Shale (break) .....		5	640
Shale, hard, gray .....		50	690
Shale, soft .....		25	715
Shale, hard, gray .....		25	740
Mississippian System.			
Sand and limestone .....		10	750
Sand (Maxon), (water) .....		40	790
Limestone (Little Lime) .....		20	810
Shale (pencil cave) .....		10	820
Limestone (Big Lime) .....		198	1,018
Sandstone (Big Injun) .....		52	1,070
Shale .....		20	1,090
Shells .....		370	1,460
Shale, brown (Sunbury) .....		20	1,480
Sandstone (Berea) .....		2	1,482
Total depth .....			1,482

### Log No. 379

F. R. Bussey, No. 1, lessor. Venora Oil & Gas Co., of Huntington, W. Va., lessee. Location: near Busseyville.

#### Strata.

Pennsylvanian System.		Thickness	Depth
Gravel .....		30	30
Shale black .....		50	30
Sandstone, white .....		15	95
Shale, white .....		30	125
Sandstone, white .....		20	145
Limestone, black .....		40	185
Shale, black .....		15	200
Sandstone, white .....		30	230

Pennsylvanian System.	Thickness	Depth
Coal, black .....	15	245
Shale, black .....	20	265
Sandstone (salt) .....	4	269
Shale, black, (oil show 455) .....	186	455
Sandstone, white .....	30	485
Shale, black .....	70	555
Sandstone (salt), (water flood 580) .....	140	695
Shale, black .....	20	715
Sandstone .....	80	795
Shale, black .....	30	825
Sandstone .....	10	835
Shale, black .....	30	865

## Mississippian System.

Sand (Maxon) .....	40	905
Shale, black .....	30	935
Shale, red, sandy .....	20	955
Limestone (Little Lime) .....	15	970
Shale, black .....	10	980
Limestone (Big Lime) .....	100	1,080
Shale and shells .....	215	1,295
Shale and shells, white .....	255	1,550
Shale, black (Sunbury) .....	20	1,570
Sand (Berea), white .....	28	1,598
Total depth .....		1,598

## Log No. 380

F. R. Bussey, No. 2, lessor. Venora Oil & Gas Co., Huntington, W. Va., lessee. Location: Near Busseyville. Commenced: April 30, 1912. Completed: May 25, 1912.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay, yellow .....	20	20
Sandstone, white .....	80	100
Shale, brown .....	40	140
Sandstone, white .....	80	220
Shale, white .....	130	350
Shale, gray, hard .....	8	358
Shale, black .....	142	500
Sandstone, white .....	10	510
Shale, black .....	105	615

Pennsylvanian System.	Thickness	Depth
Sandstone, brown .....	15	630
Shale, black .....	10	640
Sandstone, white .....	375	1,015

## Mississippian System.

Shale, black .....	2	1,017
Limestone (Big Lime), white .....	130	1,147
Sandstone (Big Injun), gray .....	60	1,207
Shale and shell, white .....	268	1,475
Shale, black (Sunbury) .....	178	1,653
Sand (Berea), gray .....	64	1,717
Total depth .....		1,717

Hole full of water, 645.

Break shale 23-26.

## Log No. 381

F. R. Bussey, No. 4, lessor. New Domain Oil & Gas Co., lessee.  
 Location: Near Busseyville. Commenced: August 15, 1919. Completed: September 29, 1919. Production: 2 bbls. per day, shot 50 quarts.

## Strata.

Pennsylvanian System.	Thickness	Depth
Quicksand .....	52	52
Coal .....	2	54
Shale and shells .....	410	464
Sandstone .....	388	852

## Mississippian System.

Limestone (Big Lime) .....	151	1,003
Sandstone (Big Injun) .....	15	1,018
Shale and shells .....	442	1,460
Shale, brown (Sunbury) .....	27	1,487
Sandstone (Berea) .....	57½	1,544½
Total depth .....		1,544½

First pay, 1487-1491.

Second pay, 1527-1537.

**Log No. 382**

F. R. Bussey, No. 5, lessor. New Domain Oil & Gas Co., lessee.  
Production: 2 bbls. per day, shot Oct. 13, 1919, 40 quarts.

## Strata.

Pennsylvanian System.	Thickness	Depth
Loam .....	14	14
Sandstone .....	40	54
Shale .....	39	92
Coal .....	2	94
Shale and shell .....	410	504
Sand (salt) .....	386	890

## Mississippian System.

Limestone (Big Lime) .....	118	1,008
Sandstone (Big Injun) .....	40	1,048
Shells .....	465	1,513
Shale, brown (Sunbury) .....	20	1,533
Sandstone (Berea), (oil pay 1581-1597) .....	64	1,597
Total depth .....		1,597

**Log No. 383**

F. R. Bussey, No. 6, lessor. New Domain Oil & Gas Co., lessee.  
Production: 3 bbls. oil; shot Nov. 5, 1919, 140 quarts.

## Strata.

Pennsylvanian System.	Thickness	Depth
Gravel .....	30	30
Quicksand .....	15	45
Sandstone .....	100	145
Shale, soft, blue .....	80	225
Shale .....	180	405
Sand (salt) .....	325	730
Shale .....	115	845

## Mississippian System.

Limestone (Big Lime) .....	160	1,005
Sandstone (Big Injun) .....	60	1,065
Shale .....	415	1,480
Shale, brown (Sunbury) .....	7	1,487
Sandstone (Berea) .....	63	1,550
Total depth .....		1,550

**Log No. 384**

F. R. Bussey, No. 7, lessor. New Domain Oil & Gas Co., lessee.  
Production: 3 bbls. oil per day; shot March 2, 1920, 80 quarts.

## Strata.

Pennsylvanian System.	Thickness	Depth
Gravel .....	20	20
Sandstone .....	80	100
Shale and shells .....	475	575
Sand (salt) .....	359	934
Mississippian System.		
Limestone (Big Lime) .....	145	1,079
Sandstone (Big Injun) .....	25	1,104
Shale and shells .....	479	1,583
Shale, brown (Sunbury) .....	17	1,600
Sandstone (Berea) .....	54½	1,654½
Total depth .....		1,654½

Oil 1660-1668.

Second pay, 1632-1650.

**Log No. 385**

F. R. Bussey, No. 8, lessor. New Domain Oil & Gas Co., lessee.  
Production: 3 bbls.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay .....	20	20
Sandstone .....	185	205
Shale .....	250	455
Sandstone .....	170	625
Shale .....	20	645
Sandstone (salt) .....	335	980
Shale .....	60	1,040
Mississippian System.		
Limestone (Big Lime) .....	155	1,195
Sandstone (Big Injun) .....	25	1,220
Shale and shells .....	423	1,643
Shale, brown (Sunbury) .....	15	1,658
Sandstone (Berea) .....	60	1,718
Total depth .....		1,718

**Log No. 386**

F. R. Bussey, No. 9, lessor. New Domain Oil & Gas Co., lessee.  
Shot: October 13, 1919, 40 quarts. Production: 1 bbl. oil.

## Strata.

Pennsylvanian System.	Thickness	Depth
Leam .....	14	14
Sandstone .....	40	54
Shale .....	38	92
Coal .....	2	94
Shale and shells .....	410	504
Sand (salt) .....	386	890
Mississippian System.		
Limestone (Big Lime) .....	118	1,008
Sandstone (Big Injun) .....	40	1,048
Shells .....	465	1,513
Shale, brown (Sunbury) .....	20	1,533
Sandstone (Berea) .....	64	1,597
Total depth .....		1,597

**Log No. 387**

F. R. Bussey, No. 1, lessor. Sullivan-Mayo Oil & Gas Co., lessee.  
Commenced: September 21, 1912. Completed: November 14, 1912.  
Shot: 60 quarts.

## Strata.

Pennsylvanian System.	Thickness	Depth
Shale and sandstone, (water) .....	470	470
Sandstone (gas) .....	205	675
Shale, black .....	40	715
Sandstone (salt) .....	170	885
Mississippian System.		
Limestone (Big Lime) .....	149	1,034
Shale .....	456	1,490
Shale, brown (Sunbury) .....	38	1,528
Sandstone (Berea) .....	58	1,586
Shale .....	14	1,600
Total depth .....		1,600

NOTE—The above record of the Sullivan-Mayo Oil & Gas Co., and the one following of the Louisa Coal Co., are both F. R. Bussey No. 1 wells of the named lessees. These wells are not to be confused with the F. R. Bussey No. 1 of the Venora Oil & Gas Co., which appears on an earlier page. The three wells are entirely distinct and somewhat separated geographically, though all in Lawrence County.



**Log No. 388**

F. R. Bussey, No. 1, lessor. Louisa Coal Co., lessee. Commenced: December 20, 1912. Completed: January 23, 1913. 1st shot, 50 quarts; 2nd shot, 200 quarts.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil and clay .....	36	36
Sandstone white .....	92	128
Shale, white .....	2	130
Sandstone, white .....	20	150
Shale and shell .....	360	510
Sandstone, white .....	25	535
Shale, blue .....	105	640
Sandstone, white .....	20	660
Shale, white .....	30	690
Sand (salt), gray .....	50	740
Shale, white .....	40	780
Sandstone, white .....	10	790
Shale, blue .....	6	796
Sandstone, gray .....	104	800
Shale, white .....	5	805
Sandstone, white .....	154	959
Coal .....	1	960
Shale, white .....	10	970

## Mississippian System.

Limestone (Big Lime) .....	135	1,105
Shale, white .....	33	1,138
Limestone, black .....	10	1,148
Shale, white .....	438	1,586
Shale, coffee (Sunbury) .....	20	1,606
Sandstone (Berea) .....	56	1,662
Total depth .....		1,662

**Log No. 389**

C. J. Carter, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Near Yatesville. Commenced: October 13, 1919. Completed: November 19, 1919. Shot November 20, 1919, 60 quarts. Production: Gas, 300,000 cubic feet.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	14	14
Sandstone .....	86	110

## Pennsylvanian System.

	Thickness	Depth
Shale .....	50	150
Sandstone .....	20	170
Shale .....	40	210
Sandstone, buff .....	25	235
Shale .....	25	260
Sandstone .....	20	280
Shale .....	345	625
Sandstone .....	100	725
Shale .....	20	745
Sand (salt) .....	215	960
Shale .....	12	972

## Mississippian System.

Sand (Maxon) .....	21	993
Shale .....	7	1,000
Limestone (Little Lime) .....	20	1,020
Shale (pencil cave) .....	3	1,023
Limestone (Big Lime) .....	137	1,160
Sandstone (Big Injun) .....	89	1,249
Shale .....	26	1,275
Shale and limestone shells .....	25	1,300
Shale .....	297	1,597
Shale and limestone shells .....	12	1,609
Shale .....	125	1,734
Sandstone (Berea) .....	24½	1,758½
Total depth .....		1,758½

## Log No. 390

C. J. Carter, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: December 9, 1919. Completed: January 9, 1920. Shot January 12, 1920, 60 quarts. Production: Gas, 130,000 cubic feet.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Soil .....	30	30
Sandstone .....	20	50
Shale .....	30	80
Coal .....	3	83
Shale .....	52	135
Sandstone .....	65	200
Shale .....	30	230
Sandstone .....	15	245

Pennsylvanian System.	Thickness	Depth
Shale .....	125	370
Sandstone .....	20	390
Shale .....	70	460
Sandstone .....	270	730
Shale .....	10	740
Mississippian System.		
Sand (Maxon) .....	40	780
Shale (pencil cave) .....	3	783
Limestone (Big Lime) .....	172	955
Sandstone .....	20	975
Shale .....	5	980
Sandstone .....	75	1,055
Shale .....	170	1,225
Shells .....	10	1,235
Shale .....	140	1,375
Shells .....	8	1,383
Shale .....	52	1,435
Shale and shells .....	45	1,480
Sand, brown .....	22	1,502
Sandstone (Berea), (pay 1502-1514) .....	16	1,518
Total depth .....		1,518

### Log No. 391

Hester Carter, No. 3, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: February 23, 1918. Completed: March 23, 1918. Shot May 1, 1918, 60 quarts. Production: 200,000 gas,  $\frac{1}{2}$  bbl. oil.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	11	11
Sandstone .....	89	100
Shale .....	100	200
Sandstone, buff .....	45	245
Shale .....	45	290
Sandstone .....	20	310
Shale .....	75	385
Sandstone .....	45	430
Shale and shells .....	60	490
Limestone and shells .....	50	540
Shale, black .....	70	610
Limestone, sandy, (gas 610) .....	40	650
Shale .....	50	700

## Pennsylvanian System.

	Thickness	Depth
Limestone .....	50	750
Shale .....	5	755
Sand, (salt) (water 800) .....	195	950
Shale (break) .....	3	953
Sandstone .....	57	1,010

## Mississippian System.

Shale, shelly .....	40	1,050
Sand (Maxon) .....	20	1,070
Shale (pencil cave) .....	3	1,073
Limestone (Big Lime) .....	145	1,218
Sandstone (Big Injun) .....	112	1,330
Shale and shells .....	446	1,776
Shale, brown (Sunbury) .....	22	1,798
Sandstone (Berea), (gas and oil) .....	46	1,844
Total depth .....		1,844

## Log No. 392

Hester Carter, No. 4, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: March 5, 1920. Completed: April 3, 1920. Shot April 5, 1920, 40 quarts. Production: 6 bbls. per day.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Soil .....	10	10
Sandstone .....	20	30
Shale .....	70	100
Sandstone .....	50	150
Shale .....	10	160
Sandstone .....	55	215
Shale .....	60	275
Sandstone .....	15	290
Shale .....	55	345
Sandstone .....	25	370
Shale .....	15	385
Sandstone .....	55	440
Shale .....	30	470
Sandstone .....	10	480
Shale .....	45	525
Sandstone .....	15	540
Shale .....	50	590
Sandstone .....	365	955

Mississippian System.		Thickness	Depth
Limestone (Big Lime) .....		140	1,095
Sandstone (Big Injun) .....		131	1,226
Shale .....		4	1,230
Limestone .....		40	1,270
Shale and shells .....		388	1,658
Shale, brown (Sunbury) .....		31	1,689
Sandstone (Berea), (oil is 10 feet in sand) ...		24	1,713
Total depth .....			1,713

**Log No. 393**

Hester Carter, No. 5, lessor. Ohio Fuel Oil & Gas Co., lessee.  
 Commenced: April 15, 1920. Completed: May 13, 1920. Gas, 300,-  
 000 cubic feet gas per day. Shot May 14, 1920, 60 quarts. Produc-  
 tion: Gas, 400,000 cubic feet.

**Strata.**

Pennsylvanian System.		Thickness	Depth
Quicksand .....		65	65
Shale .....		20	85
Sandstone .....		35	120
Shale .....		80	200
Sandstone .....		25	225
Shale .....		15	240
Sandstone .....		50	290
Shale .....		20	310
Sandstone .....		20	330
Shale .....		30	360
Sandstone .....		15	375
Shale .....		5	380
Sandstone .....		55	435
Shale .....		5	440
Sandstone .....		328	768

**Mississippian System.**

Limestone (Big Lime) .....	182	950
Sand .....	70	1,020
Shale and sandstone, hard .....	52	1,072
Shale and limestone shells .....	93	1,115
Shale and shells .....	395	1,510
Sandstone (Berea), (1st pay, 12 feet in sand) ..	23	1,533
Total depth .....		1,533

**Log No. 394**

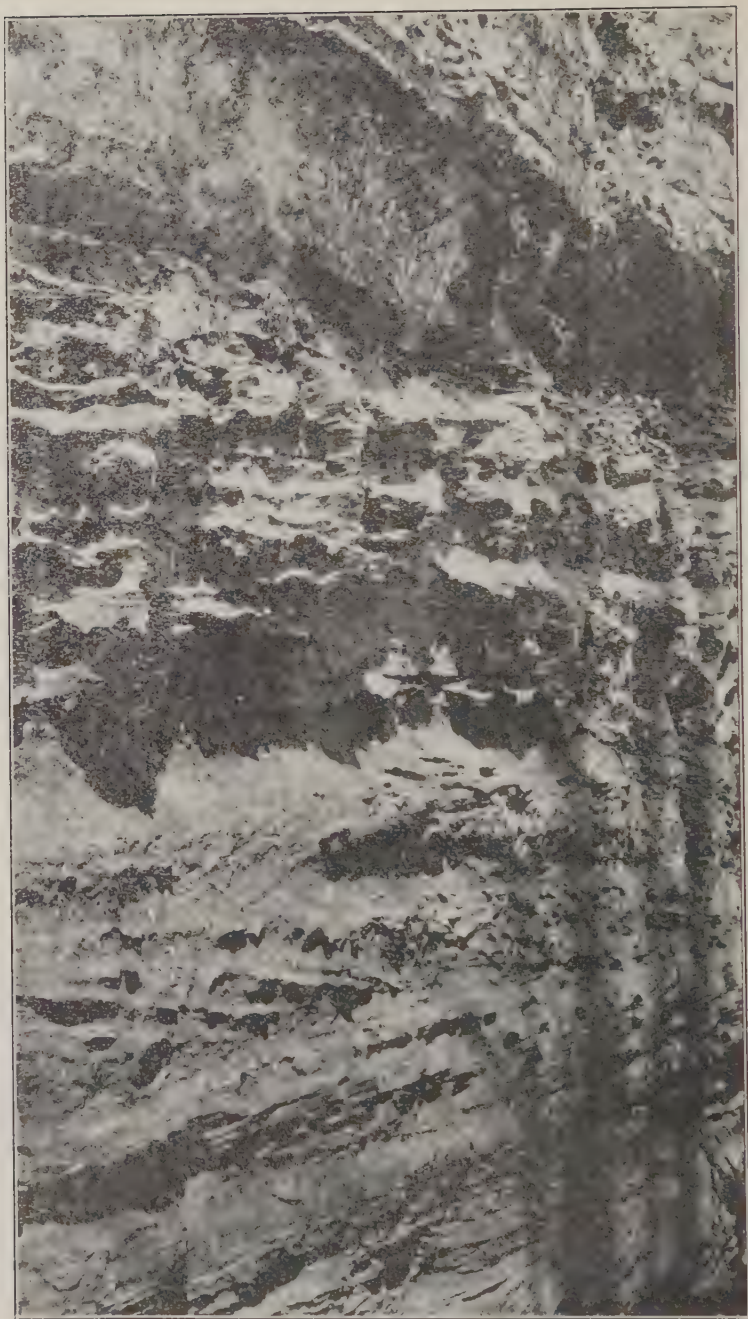
Landon Carter, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Twin Branch. Commenced: March 24, 1919. Completed: April 17, 1919. Production: Dry hole.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	16	16
Sandstone .....	34	50
Shale .....	40	90
Gravel .....	26	116
Shale .....	4	120
Shale (fire clay) .....	40	160
Shale .....	60	220
Shale (fire clay) .....	17	237
Coal .....	2	239
Shale .....	41	280
Shale (fire clay) .....	20	300
Shale, hard .....	15	315
Shale .....	75	390
Shale, hard .....	10	400
Shale .....	68	468
Sandstone (Cow Run), gas .....	32	500
Shale, hard .....	18	518
Shale .....	5	523
Shale, shelly .....	27	550
Shale, sandy .....	65	615
Shale, (water 635-650) .....	3	618
Sandstone .....	32	650
Shale .....	3	653
Sandstone .....	75	728

## Mississippian System.

Shale and shells .....	37	765
Limestone (Little Lime) .....	15	780
Shale (pencil cave) .....	2	782
Limestone (Big Lime) .....	163	945
Sandstone (Big Injun) .....	100	1,045
Shale .....	17	1,062
Limestone .....	18	1,080
Shale .....	285	1,365
Shells .....	115	1,480



WEATHER PITTED POTTSVILLE CONGLOMERATE.

The irregular hardness and cross bedding of this important oil "sand" is well shown. This outcrop is just below Natural Bridge in Powell County, Kentucky.



Mississippian System.		Thickness	Depth
Shale, brown (Sunbury) .....	20	1,500	
Sandstone (Berea) .....	42	1,542	
Total depth .....		1,542	
Little gas 1491-1497; little gas and water 1521-1527. Drilled 42 feet in sand.			

**Log No. 395**

Pricey Chapman, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee.  
 Location: Near Louisa. Commenced: March 9, 1920. Completed:  
 April 15, 1920. Shot April 16, 1920, 90 quarts. Production: 2 bbls.  
 per day.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil .....	14	14	
Shale, white .....	21	35	
Shale, soft .....	20	55	
Coal .....	2	57	
Shale .....	13	70	
Shale .....	10	80	
Shale, soft .....	30	110	
Sandstone, blue, (water 125) .....	45	155	
Shale .....	45	200	
Shale, shelly .....	15	215	
Shale and mud .....	35	250	
Sandstone .....	40	290	
Shale .....	160	450	
Sandstone .....	25	475	
Shale .....	35	510	
Shale, white, hard .....	15	525	
Sandstone .....	75	600	
Shale, shelly .....	55	655	
Sand (salt) .....	115	770	
Shale, soft .....	20	790	
Sandstone .....	70	860	
Shale, sandy .....	40	900	
Shale .....	25	925	

## Mississippian System.

Sand .....	5	930	
Limestone .....	5	935	
Shale (pencil cave) .....	5	940	
Limestone (Big Lime) .....	160	1,100	



Mississippian System.	Thickness	Depth
Sandstone (Big Injun) .....	105	1,205
Shale and shells .....	458	1,663
Shale, brown (Sunbury) .....	22	1,685
Sand (Berea) .....	27½	1,712½
Total depth .....		1,712½
Pay 1684-1710.		

**Log No. 396**

Pricey Chapman, No. 3, lessor. Ohio Fuel Oil & Gas Co., lessee.  
Commenced: May 18, 1920. Completed June 11, 1920. Shot June 12,  
1920. Production: 3 bbls. per day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay .....	12	12
Sandstone .....	18	30
Shale (fire clay), coal .....	130	160
Sandstone, buff, (water) .....	30	190
Shale, soft .....	40	230
Shale and shells .....	40	270
Limestone, white .....	15	285
Shale .....	10	295
Sandstone .....	60	355
Shale .....	35	390
Sandstone .....	25	415
Shale .....	115	530
Sandstone .....	40	570
Shale .....	10	580
Sandstone .....	70	650
Shale and shells .....	50	700
Sand (salt) .....	110	810
Shale (break) .....	10	820
Sandstone .....	80	900
Shale, soft .....	25	925
Sandstone .....	50	975
Shale .....	15	990

## Mississippian System.

Sand (Maxon) .....	20	1,010
Shale (pencil cave) .....	25	1,035
Limestone (Big Lime) .....	140	1,175
Sandstone (Big Injun) .....	92	1,267

Mississippian System.		Thickness	Depth
Shale, shelly .....	63	1,330	
Shale and shells .....	370	1,700	
Shale, brown (Sunbury) .....	27	1,727	
Sandstone (Berea), (pay 1,739-1,751) .....	38	1,765	
Total depth .....		1,765	

**Log No. 397**

James L. Clark, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee.  
Commenced: July 8, 1918. Completed: Aug. 15, 1918. Shot Aug.  
19, 1918, 60 qts. Production: 1 bbl. oil per day.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil .....	14	14	
Shale, hard .....	26	40	
Sandstone .....	45	85	
Shale .....	15	100	
Sandstone .....	20	120	
Shale .....	6	126	
Sandstone .....	6	132	
Coal .....	3	135	
Shale and mud .....	75	210	
Shale, hard .....	25	235	
Shale, soft .....	40	275	
Shale .....	10	285	
Coal .....	3	288	
Shale .....	152	440	
Sandstone .....	16	456	
Shale .....	102	558	
Sandstone .....	22	580	
Shale, hard .....	20	600	
Shale .....	6	606	
Sand (salt) .....	159	765	
Shale .....	35	800	
Sandstone .....	45	845	
Shale, soft .....	3	848	

## Mississippian System.

Limestone, black .....	15	863
Shale, red, sandy .....	4	867
Sand .....	3	870
Shale, soft, black .....	3	873
Clay, white .....	4	877

Mississippian System.	Thickness	Depth
Shale (pencil cave) .....	5	882
Limestone (Big Lime) .....	163	1,045
Sandstone (Big Injun) .....	60	1,105
Limestone shells .....	40	1,145
Shale and shells .....	440	1,585
Shale, brown (Sunbury) .....	25	1,610
Sand (Berea), (1st oil 1,610-1,618) .....	24½	1,634½
Total depth .....		1,634½

**Log No. 398**

William Clark, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee.  
 Commenced: Sept. 8, 1917. Completed: Oct. 31, 1917. Shot Nov. 1,  
 1917, 80 qts. Production: 4 bbls.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Soil .....	20	20
Shale, soft .....	20	40
Sandstone, bluff .....	110	150
Shale .....	50	200
Sandstone .....	80	280
Shale .....	85	365
Shale, hard .....	55	420
Shale .....	70	490
Shale, hard .....	68	558
Shale .....	2	560
Sandstone (salt) .....	165	725
Shale .....	15	740
Shale, hard, gray .....	40	780
Shale and shells .....	95	875

**Mississippian System.**

Sand (Maxon) .....	22	897
Shale (pencil cave) .....	3	900
Limestone (Big Lime) .....	160	1,060
Sandstone (Big Injun) .....	98	1,158
Shale and shells .....	433	1,591
Shale, brown (Sunbury) .....	25	1,616
Sandstone (Berea), (oil pay 1,617-1,627) ...	26½	1,642½
Total depth .....		1,642½

## Log No. 399

William Clark, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: near Busseyville. Commenced: Sept. 8, 1917. Completed: Oct. 31, 1917. Shot Nov. 1, 1917, 80 qts. Production: 2 bbls. per day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	20	20
Shale, soft .....	20	40
Sandstone, bluff .....	110	150
Shale .....	50	200
Sandstone .....	80	280
Shale .....	85	365
Shale, hard .....	55	420
Shale .....	70	490
Shale, hard .....	68	558
Shale .....	2	560
Sandstone (salt) .....	165	725
Shale .....	15	740
Shale, hard .....	40	780
Shale and shell .....	95	875
Mississippian System.		
Sand (Maxon) .....	22	897
Shale (pencil cave) .....	3	900
Limestone (Big Lime) .....	160	1,060
Sandstone (Big Injun) .....	98	1,158
Shale and shells .....	433	1,591
Shale, brown (Sunbury) .....	25	1,616
Sandstone (Berea), (pay 1,617-1,627) .....	26½	1,642½
Total depth .....		1,642½

## Log No. 400

A. Collinsworth, No. 4, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: March 12, 1918. Completed: April 10, 1918. Shot April 11, 1918, 60 quarts. Production: 4 or 5 bbls. daily.

## Strata.

Pennsylvanian System.	Thickness	Depth
Shale and mud .....	80	80
Sandstone .....	4	84
Coal .....	3	87

Pennsylvanian System.	Thickness	Depth
Shale .....	78	165
Sandstone .....	35	200
Shale .....	10	210
Sandstone .....	20	230
Shale .....	15	245
Sandstone and shale .....	35	280
Coal .....	4	284
Shale .....	106	390
Sandstone .....	10	400
Shale .....	20	420
Sandstone .....	15	435
Coal .....	3	438
Shale .....	42	480
Sandstone .....	15	495
Shale .....	85	580
Coal .....	4	584
Shale .....	31	615
Sandstone .....	11	626
Shale .....	10	636
Sandstone .....	14	650
Shale .....	20	670
Sandstone .....	70	740
Shale .....	5	745
Sand (salt) .....	135	880
Shale .....	65	945

## Mississippian System.

Sandstone .....	20	965
Shale, soft .....	45	1,010
Limestone (Little Lime) .....	25	1,035
Shale, soft .....	5	1,040
Limestone (Big Lime) .....	45	1,185
Sandstone (Big Injun) .....	72	1,257
Limestone, black .....	58	1,315
Shale and shells .....	403	1,718
Shale, brown (Sunbury) .....	22	1,740
Sandstone (Berea), (oil) .....	16	1,756
Shale (gas 1756) .....	2	1,758
Shale and sandstone .....	9	1,767
Total depth .....		1,767

**Log No. 401**

A. Collinsworth, No. 5, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: June 14, 1918. Completed: July 15, 1918. No record to 610. Production: 4 bbls. per day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Unrecorded .....	610	610
Sand (salt) .....	225	835
Shale .....	15	850
Sandstone .....	10	860
Shale .....	115	975
Limestone .....	15	990
Shale .....	20	1,010

## Mississippian System.

Limestone (Big Lime) .....	145	1,155
Shale .....	25	1,180
Sandstone (Big Injun) .....	50	1,230
Shale .....	5	1,235
Shale and shells .....	420	1,655
Shale, brown (Sunbury) .....	25	1,680
Sandstone (Berea), (pay 1681-1691) .....	27	1,707
Total depth .....		1,707

**Log No. 402**

W. A. Copley, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Near Fallsburg. Commenced: May 8, 1918. Completed: June 8, 1918. Shot June 20, 1918, 60 quarts. Production: Dry hole.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	5	5
Shale .....	45	50
Sandstone .....	40	90
Shale and shell .....	40	130
Sandstone .....	15	145
Shale, soft, blue .....	30	175
Sandstone, white .....	5	180
Shale and coal .....	35	215
Limestone, sandy .....	85	300
Shale .....	100	400
Sandy shell .....	50	450

Pennsylvanian System.	Thickness	Depth
Shale .....	30	480
Sandstone (Cow Run) .....	35	515
Shale .....	45	560
Limestone, sandy .....	20	580
Shale .....	20	600
Sandstone .....	80	680
Shale .....	10	690
Sandstone .....	160	850
Shale .....	50	900

## Mississippian System.

Sand, shelly .....	30	930
Shale .....	40	970
Sand .....	20	990
Shale, white .....	55	1,045
Limestone (Big Lime) .....	135	1,180
Sand, shelly .....	88	1,268
Sandstone (Big Injun) .....	80	1,348
Limestone .....	52	1,400
Shale and shells .....	323	1,723
Shells, brown (Sunbury) .....	20	1,743
Sand (Berea) .....	10	1,753
Shale (break) .....	2	1,755
Sand, (gas 1768) .....	13	1,768
Sand .....	13	1,781
Total depth .....		1,781

## Log No. 403

W. A. Copley, No. 4, lessor. Ohio Fuel Oil & Gas Co., lessee. Production: Gas, 100,000 cubic feet, and 1 bbl. oil.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil (clay) .....	20	20
Limestone .....	40	60
Shale .....	15	75
Sandstone .....	9	84
Shale .....	26	110
Shale (fire clay) .....	5	115
Sandstone .....	10	125
Shale soft .....	25	150
Sandstone .....	13	163
Coal .....	2	165

## Pennsylvanian System.

	Thickness	Depth
Shale .....	30	195
Sandstone (water) .....	12	207
Shale .....	33	240
Sandstone .....	15	255
Shale .....	65	320
Sandstone, (water) .....	40	360
Shale .....	50	410
Sandstone, (water) .....	35	445
Shale .....	70	515
Sandstone .....	25	540
Shale .....	40	580
Sandstone .....	25	605
Shale .....	13	618
Sandstone .....	44	662
Coal .....	3	665
Sandstone .....	81	746
Shale .....	29	775
Sand (salt) .....	115	890
Shale and shells .....	90	980

## Mississippian System.

Sand (Maxon) .....	12	992
Shale .....	38	1,030
Limestone, sandy .....	15	1,045
Limestone (Big Lime) .....	140	1,185
Sandstone (Big Injun) .....	15	1,200
Shale (break) .....	15	1,215
Sand .....	70	1,285
Shale and mud .....	25	1,310
Limestone .....	15	1,325
Shale and shells .....	414	1,739
Shale, brown (Sunbury) .....	26½	1,765½
Sand (Berea) .....	23	1,788½
Total depth .....		1,788½

Break from 1775-1777.

Pay from 1765½-1775.

## Log No. 404

William Crider, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee.  
 Location: Near Louisa. Commenced: July 2, 1919. Completed: August  
 4, 1919. Shot August 6, 1919, 60 quarts. Production ½ bbl. oil  
 per day.



Strata.		Thickness	Depth
Pennsylvanian System.			
Soil .....		26	26
Shale .....		119	145
Sandstone .....		65	210
Shale and shells .....		180	390
Limestone, sandy .....		25	415
Shale and shells .....		225	640
Limestone, sandy .....		90	730
Shale .....		5	735
Sand (salt) .....		95	830
Shale .....		5	835
Sandstone .....		20	855
Shale .....		45	900
Sandstone .....		25	925
Shale .....		20	945
Mississippian System.			
Sandstone .....		40	985
Shale (pencil cave) .....		11	996
Limestone (Big Lime) .....		166	1,162
Sandstone (Big Injun) .....		93	1,255
Limestone, black .....		40	1,295
Shale and shells .....		405	1,700
Shale, brown (Sunbury) .....		21	1,721
Sandstone (Berea) .....		36	1,757
Total depth .....			1,757

**Log No. 405**

D. W. Diamond, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee.  
 Commenced: July 24, 1917. Completed: August 25, 1917. Shot Aug-  
 ust 28, 1917, 100 quarts. Production: 1 bbl. per day.

Strata.		Thickness	Depth
Pennsylvanian System.			
Soil .....		20	20
Shale and shells .....		70	90
Sandstone .....		90	180
Shale and shells .....		100	280
Coal. (water) .....		3	283
Shale, (water) .....		337	620
Sand, (salt), (much water 675) .....		100	720
Shale and shells .....		100	820
Shale and sand .....		120	940

## Mississippian System.

	Thickness	Depth
Sandstone (Maxon) .....	18	958
Shale (Pencil Cave) .....	2	960
Limestone (Big Lime) .....	140	1,100
Sandstone (Big Injun) .....	110	1,210
Shale and shells .....	457	1,667
Shale, brown (Sunbury) .....	20	1,687
Sandstone (Berea) .....	8	1,695
Shale .....	3	1,698
Sand, (oil 1699-1709) .....	20	1,718
Total depth .....		1,718

## Log No 406

D. W. Diamond, No. 3, lessor. Ohio Fuel Oil & Gas Co., lessee.  
Commenced: April 6, 1918. Completed: June 22, 1918. Shot June  
22, 1918, 60 quarts. Production: 2½ bbls. per day.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Soil .....	14	14
Sandstone .....	26	40
Shale, red, sandy .....	20	60
Sandstone .....	20	80
Shale .....	40	120
Shale, soft .....	40	160
Shale and shells .....	40	200
Sandstone .....	50	250
Shale .....	25	275
Sandstone .....	25	300
Shale .....	380	680
Shale, shelly .....	100	780
Sand (salt) .....	80	860
Shale and sand .....	90	950
Sand .....	25	975
Shale, muddy .....	25	1,000

## Mississippian System.

Sandstone (Maxon) .....	60	1,060
Shale (Pencil Cave) .....	20	1,080
Shale, white .....	20	1,100
Limestone (Big Lime) .....	158	1,258
Sandstone (Big Injun) .....	75	1,333
Shale and shells .....	442	1,775
Shale, brown (Sunbury) .....	17	1,792
Sandstone (Berea), (oil 1792-1798) .....	26½	1,818½
Total depth .....		1,818½

**Log No. 407**

D. W. Diamond, No. 4, lessor. Ohio Fuel Oil & Gas Co., lessee.  
Commenced: October 31, 1919. Completed: January 7, 1920. Shot  
January 9, 1920, 60 quarts. Production: 1 bbl.

## Strata.

Pennsylvanian System.	Thickness	Depth
Alluvium .....	10	10
Shale, hard .....	30	40
Shale .....	5	45
Coal .....	4	49
Shale, hard .....	31	80
Shale .....	10	90
Sandstone .....	45	135
Shale .....	15	150
Sandstone, (water 180) .....	50	200
Shale .....	360	560
Shale, hard .....	50	610
Shale .....	20	630
Shale, hard .....	55	685
Sandstone (salt sand), (water) .....	140	825
Shale, (water) .....	25	850
Mississippian System.		
Sand (Maxon) .....	30	880
Shale .....	75	955
Limestone (Big Lime) .....	210	1,165
Sandstone (Big Injun) .....	65	1,230
Shale .....	140	1,370
Limestone .....	30	1,400
Shale and shells .....	252	1,652
Shale (Sunbury) .....	27	1,679
Sandstone (Berea), (oil 1679-1684) .....	21	1,700
Total depth .....		1,700

**Log No 408**

J. F. Diamond, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee.  
Commenced: March 20, 1920. Completed: June 14, 1920. Shot June  
14, 1920, 60 quarts. Production: 8 bbls.

## Strata.

Pennsylvanian System.	Thickness	Depth
Loam and quicksand .....	25	25
Sandstone .....	155	180

Pennsylvanian System.		Thickness	Depth
Shale .....		20	200
Shale, hard .....		65	265
Coal .....		5	270
Shale and shells .....		240	510
Sand (salt) .....		50	560
Shale .....		75	635
Sand (salt) .....		165	800
Shale .....		25	825
Sand .....		110	935
Shale .....		15	950
Mississippian System.			
Limestone (Little Lime) .....		20	970
Shale (pencil cave) .....		7	977
Limestone (Big Lime) .....		153	1,130
Sandstone (Big Injun) .....		80	1,210
Shale and shells .....		445	1,655
Shale, brown (Sunbury) .....		18	1,673
Sand (Berea), (oil 1675-1687) .....		22½	1,695½
Total depth .....			1,695½

**Log No. 409**

J. H. Diamond, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee.  
 Location: Near Busseyville. Commenced: April 21, 1919. Completed:  
 May 27, 1919. Shot May 28, 1919, 60 quarts. Production: 3 bbls.  
 per day.

**Strata.**

Pennsylvanian System.		Thickness	Depth
Soil .....		11	11
Shale .....		44	55
Sandstone .....		5	60
Shale, soft .....		4	64
Coal .....		3	67
Shale .....		48	115
Sandstone .....		10	125
Shale .....		10	135
Sandstone, buff .....		40	175
Shale .....		10	185
Sandstone .....		15	200
Shale and shells .....		400	600
Shale, hard .....		15	615
Shale .....		115	730

Pennsylvanian System.		Thickness	Depth
Sandstone .....		210	940
Shale, soft, black .....		3	943
Shale, sandy, hard .....		57	1,000
Shale .....		10	1,010
Mississippian System.			
Sand (Maxon) .....		10	1,020
Limestone (Little Lime) .....		17	1,037
Shale (pencil cave) .....		3	1,040
Limestone (Big Lime) .....		160	1,200
Sandstone (Big Injun) .....		75	1,275
Shale and shells .....		435	1,710
Shale, brown (Sunbury) .....		24½	1,734½
Sandstone (Berea) .....		27	1,761½
Total depth .....			1,761½

**Log No. 410**

J. H. Diamond, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee.  
Commenced: January 12, 1920. Completed: February 23, 1920. Shot  
February 24, 1920, 60 quarts. Production: 6 bbls. per day.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil .....		25	25
Shells and blues .....		135	160
Sand, mountain .....		60	220
Shells and blues .....		360	580
Sand, (oil show 625) .....		70	650
Shale, blue .....		80	730
Sand (salt) .....		90	820
Shale, blue .....		10	830
Sand .....		15	845
Shale, black, and shell .....		55	900
Sand .....		85	985
Shale, black .....		15	1,000
Mississippian System.			
Limestone (Little Lime) .....		20	1,020
Shale, blue .....		5	1,025
Limestone (Big Lime) .....		145	1,170
Sandstone (Big Injun) .....		45	1,215
Limestone, shelly .....		30	1,245

Mississippian System.	Thickness	Depth
Shells .....	470	1,715
Shale, brown (Sunbury) .....	22	1,737
Sandstone (Berea), (pay 1738-1753) .....	26	1,763
Total depth .....		1,763

**Log No. 411**

W. I. Diamond, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee.  
Commenced: August 27, 1919. Completed: October 2, 1919. Shot  
October 3, 1919, 40 quarts. Production: 6 bbls.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Soil .....	8	8
Sandstone .....	17	25
Shale .....	95	120
Sandstone .....	30	150
Coal .....	3	153
Clay .....	27	180
Sandstone, buff .....	125	305
Shale .....	20	325
Coal .....	3	328
Shale .....	112	440
Sandstone .....	30	470
Shale .....	45	515
Sand, shelly .....	20	535
Shale .....	15	550
Sandstone .....	30	580
Shale and shells .....	70	650
Sandstone .....	40	690
Shale .....	70	760
Sand (salt) .....	200	960
Shale .....	5	965
Sandstone .....	95	1,060
Shale, black .....	10	1,070
Sandstone .....	10	1,080
Shale, black .....	5	1,085

**Mississippian System.**

Sand (Maxon) .....	23	1,108
Shale .....	22	1,130
Limestone (Big Lime) .....	150	1,280
Sandstone (Big Injun) .....	70	1,350
Sand, shells .....	145	1,495

Mississippian System.	Thickness	Depth
Shale .....	125	1,620
Sand shells .....	180	1,800
Shale, brown (Sunbury) .....	23	1,823
Sandstone (Berea), (pay 1823-1829) .....	21	1,844
Total depth .....		1,844

**Log No. 412**

Jas. Grubbs, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Twin Branch District. Commenced: February 3, 1920. Completed: March 25, 1920. Shot March 26, 1920, 60 quarts. Production: 300,000 cubic feet gas.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	30	30
Sand and shale .....	510	540
Sand (salt) .....	180	720
Sand and shale .....	80	800

## Mississippian System.

Limestone (Big Lime) .....	155	955
Sandstone (Big Injun) .....	116	1,071
Shale and shells .....	418	1,489
Shale, brown (Sunbury) .....	22	1,511
Sand (Berea) (pay 1512-1522) .....	17	1,528
Total depth .....		1,528

**Log No. 413**

Tom Hays, No. 3, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Fallsburg District. Commenced: May 19, 1920. Completed: June 14, 1920. Shot June 20, 1920, 80 quarts. Production: 4 bbls. per day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	7	7
Limestone .....	3	10
Shale, soft .....	80	90
Sandstone .....	45	135
Coal .....	4	139

Pennsylvanian System.	Thickness	Depth
Sandstone .....	143	282
Coal, (water 285) .....	3	285
Sandstone .....	115	400
Shale .....	40	440
Sandstone .....	30	470
Shale .....	30	500
Sandstone, (oil 515) .....	45	545
Shale .....	175	720
Sandstone, (water 520) .....	30	750
Shale, (oil 865) .....	30	780
Sand (salt) .....	120	900
Shale .....	15	915
Sandstone .....	15	930

## Mississippian System.

Shale, sandy, red .....	10	940
Sand .....	80	1,020
Shale .....	25	1,045
Sand .....	12	1,057
Shale .....	8	1,065
Limestone (Big Lime) .....	140	1,205
Shale .....	20	1,225
Sandstone (Big Injun) .....	95	1,320
Shale and shells .....	445	1,765
Shale, brown (Sunbury) .....	24	1,789
Sand (Berea), (pay 1790-1800 and 1803-1813)	26	1,815
Total depth .....		1,815

## Log No. 414

Tom Hayton, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: August 17, 1917. Completed: September 10, 1917. Shot September 11, 1917, 100 quarts. Production: 2 bbls. oil.

## Strata.

Pennsylvanian System.	Thickness	Depth
Shale .....	100	100
Sandstone .....	50	150
Shale .....	230	380
Sandstone .....	55	435
Shale .....	150	585
Limestone .....	27	612
Sandstone .....	38	650
Shale .....	6	656



Pennsylvanian System.		Thickness	Depth
Sandstone .....		12	668
Shale .....		52	720
Sand (salt) .....		105	825
Shale .....		5	830
Sandstone .....		54	884
Shale .....		6	890
Sandstone .....		10	900
Shale and shells .....		10	910
Sandstone .....		12	922
Shale .....		18	940
Sandstone .....		35	975
Mississippian System.			
Shale and shells .....		35	1,010
Limestone (Big Lime) .....		170	1,180
Sandstone (Big Injun) .....		61	1,241
Shale, soft .....		4	1,245
Sandstone .....		55	1,300
Shale and shells .....		404	1,704
Shale, brown (Sunbury) .....		24	1,728
Sandstone (Berea), (oil pay) .....		36	1,764
Total depth .....			1,764

**Log No. 415**

Marion Herd, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Busseyville District. Commenced: May 29, 1917. Completed: June 29, 1917. Shot June 30, 1917, 100 quarts. Production: 6 bbls. oil.

**Strata.**

Pennsylvanian System.		Thickness	Depth
Soil .....		16	16
Sandstone .....		34	50
Shale .....		40	90
Coal .....		3	93
Shale .....		182	275
Coal, (water) .....		3	278
Shale .....		72	350
Sandstone .....		90	440
Shale .....		25	465
Coal .....		3	468
Shale, hard .....		57	525
Shale and shells .....		75	600

Pennsylvanian System.	Thickness	Depth
Sandstone .....	50	650
Shale .....	20	670
Shale, gritty, hard .....	90	760
Shale .....	2	762
Sand (salt) .....	118	880
Shale and shells .....	40	920
Sandstone .....	20	940
Shale .....	15	955
Sandstone .....	10	965
Shale, (water 775) .....	35	1,000

Mississippian System.	Thickness	Depth
Sand (Maxon) .....	18	1,018
Shale (pencil cave) .....	2	1,020
Limestone (Big Lime) .....	165	1,185
Sandstone (Big Injun) .....	75	1,260
Shale and shells .....	454	1,714
Shale, brown (Sunbury) .....	24	1,738
Sand (Berea) (oil pay) .....	33	1,771
Total depth .....		1,771

**Log No. 416**

Marion Herd, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: October 29, 1917. Completed: November 26, 1917. Shot November 28, 1917, 80 quarts. Production: 3 bbls oil.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Soil and shale .....	80	80
Coal .....	2	82
Shale, soft .....	28	110
Sandstone .....	100	210
Shale and shells .....	50	260
Sandstone .....	25	285
Shale and shells .....	95	380
Sandstone .....	20	400
Shale .....	170	570
Sandstone .....	22	592
Coal .....	4	596
Shale .....	54	650
Sandstone .....	15	665
Shale .....	15	680
Sand (salt) .....	100	780

Pennsylvanian System.	Thickness	Depth
Shale .....	5	785
Sandstone .....	5	790
Shale .....	8	798
Sandstone .....	37	835
Shale and shells .....	5	840
Sandstone .....	18	858
Shale .....	22	880
Sandstone .....	40	920
Shale, soft .....	20	940
Mississippian System.		
Sandstone (Maxon) .....	25	965
Shale .....	10	975
Limestone (Big Lime) .....	220	1,195
Sandstone (Big Injun) .....	17	1,212
Shale, soft .....	3	1,215
Limestone .....	25	1,240
Sand .....	20	1,260
Shale and shells .....	408	1,668
Shale, brown (Sunbury) .....	25½	1,693½
Sandstone (Berea), (oil pay) .....	26	1,719½
Total depth .....		1,719½

**Log No. 417**

A. M. Holbrook, No. 1, lessor. Completed: August 28, 1904.  
 Production: Dry. Authority: The New Domain Oil & Gas Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Gravel and sand .....	40	40
Shale, hard, black, soft .....	10	50
Shale, light, soft .....	10	60
Shells light, hard .....	5	65
Shale, light, hard .....	12	77
Sand, light, soft, (water 95) .....	18	95
Shale, hard, dark, soft .....	60	155
Shells, dark, soft .....	5	160
Shale, hard, dark, soft .....	50	210
Limestone, light, hard .....	90	300
Sand, light, hard .....	150	450
Shale, hard, dark, soft, (water 480) .....	30	480
Sand, white, soft, (water 510) .....	30	510
Shale, hard, white, soft .....	10	520
Shale, dark, soft .....	16	536

Mississippian System.		Thickness	Depth
Sandstone, light, hard (Big Lime in part) ....		345	881
Shale, light, soft .....		204	1,085
Sandstone, soft (Sunbury) .....		20	1,105
Sandstone, light, hard .....		115	1,220
Devonian System.			
Shale, brown, shelly (Chattanooga) .....		500	1,720
Limestone, white, gritty .....		15	1,735
Shale, hard, white, soft .....		110	1,845
Limestone, hard, dark .....		17	1,862
Total depth .....			1,862

**Log No. 418**

J. C. Holbrook, No. 1, lessor. Union Oil & Gas Co., lessee. Location: Blaine Creek.

**Strata.**

Pennsylvanian System		Thickness	Depth
Soil .....		25	25
Quicksand .....		30	55
Water sand .....		205	260
Shale .....		75	335
Mississippian System.			
Limestone (Big Lime) .....		180	515
Sandstone .....		5	520
Shale, sandy .....		270	790
Sandstone (Wier) .....		45	835
Shale, blue .....		35	870
Shale, black (Sunbury) .....		30	900
Sandstone (Berea) .....		40	940
Shale, sandy .....		31	971
Total depth .....			971

**Log No. 419**

Jos. A. Hutchison, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Busseyville District. Commenced: May 19, 1913. Completed: June 25, 1913. Shot July 4, 1913, 125 quarts. Production: 2½ bbls. oil.

**Strata.**

Pennsylvanian System		Thickness	Depth
Gravel .....		11	11
Sandstone .....		25	36
Shale .....		14	50

Pennsylvanian System.		Thickness	Depth
Sandstone .....		25	75
Shale .....		40	115
Sandstone .....		80	195
Shale .....		35	230
Sandstone .....		20	250
Shale .....		20	270
Sandstone .....		15	285
Shale .....		165	450
Sandstone .....		100	550
Shale .....		40	590
Sand (salt), (water) .....		45	635
Shale .....		90	725
Sandstone .....		111	836
Shale .....		9	845
Mississippian System.			
Sand .....		10	855
Shale .....		5	860
Limestone (Big Lime) .....		170	1,030
Shale .....		5	1,035
Sandstone (Big Injun) .....		131	1,166
Limestone, shell, shale .....		374	1,540
Shale, brown (Sunbury) .....		21½	1,561½
Sandstone (Berea) .....		65	1,626½
Shale .....		3½	1,630
Total depth .....			1,630

**Log No. 420**

Jos. A. Hutchison, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee.  
 Commenced: April 18, 1918. Completed: June 1, 1918. Shot June 7,  
 1918, 60 quarts. Production: 3 bbls. oil per day.

**Strata.**

Pennsylvanian System.		Thickness	Depth
Soil .....		5	5
Sandstone .....		85	90
Shale .....		15	105
Sandstone .....		85	190
Coal .....		3	193
Shale .....		17	210
Sandstone .....		110	320
Coal .....		4	324
Shale .....		11	335

Pennsylvanian System.	Thickness	Depth
Sandstone .....	80	415
Shale .....	135	550
Sandstone .....	10	560
Coal .....	2	562
Shale .....	73	635
Limestone .....	55	690
Shale .....	24	714
Limestone .....	46	760
Sand (salt) .....	120	880
Shale and shells .....	30	910

## Mississippian System.

Sand (Maxon) .....	40	950
Shale .....	8	958
Shale, red, sandy .....	10	968
Shale .....	32	1,000
Limestone (Little Lime) .....	28	1,028
Shale .....	2	1,030
Limestone (Big Lime) .....	130	1,160
Sandstone (Big Injun) .....	85	1,245
Shale .....	5	1,250
Shale and shells .....	426	1,676
Shale, brown (Sunbury) .....	24	1,700
Sand, (oil) .....	13	1,713
Shale, (oil 1713, gas 1716) .....	5	1,718
Shale and sand .....	7	1,725
Total depth .....		1,725

## Log No. 421

L. N. Hutchison, No. 3, lessor. Ohio Fuel Oil & Gas Co., lessee.  
 Commenced: April 9, 1917. Completed: May 7, 1917. Shot May 9,  
 1917, 100 quarts. Production: 3 bbls. per day.

## Strata.

Pennsylvanian System	Thickness	Depth
Soil .....	16	16
Shale .....	14	30
Sandstone .....	40	70
Shale .....	80	150
Sand and shale alternating .....	600	750
Sand .....	55	805
Sandstone (salt), (water) .....	100	905
Shale .....	95	1,000

Pennsylvanian System.		Thickness	Depth
Sand .....		50	1,050
Shale .....		10	1,060
Sand .....		26	1,086
Mississippian System.			
Limestone (Big Lime) .....		94	1,180
Sand .....		183	1,363
Shale and shells .....		392	1,755
Shale, brown (Sunbury) .....		19	1,774
Sand (Berea) .....		42	1,816
Total depth .....			1,816

**Log No. 422**

L. N. Hutchison, No. 5, lessor. Ohio Fuel Oil & Gas Co., lessee.  
 Commenced: February 26, 1920. Completed: March 12, 1920. Shot  
 May 13, 1920, 60 quarts. Production: 3 bbls. per day.

**Strata.**

Pennsylvanian System		Thickness	Depth
Soil .....		12	12
Sandstone .....		108	120
Shale .....		20	140
Shale, red, sandy .....		15	155
Shale .....		75	230
Sandstone .....		15	245
Shale .....		55	300
Sandstone .....		25	325
Shale .....		75	400
Sandstone .....		250	650
Shale .....		50	700
Sandstone .....		75	775
Shale .....		25	800
Sandstone .....		30	830
Shale .....		60	890
Mississippian System.			
Sandstone (Maxon), (gas 890-900) .....		10	900
Limestone (Big Lime) .....		130	1,030
Shale .....		5	1,035
Sandstone (Big Injun) .....		105	1,140
Shale .....		410	1,550
Sandstone, brown (Berea) .....		57	1,607
Sandstone (Berea) .....		24	1,631
Total depth .....			1,631

NOTE—The Sunbury shale was not noted by the driller, it occurring in the base of the 410 feet of shale above 1550. The Maxon sand above the Big Lime is very thin.

**Log No. 423**

L. N. Hutchison, No. 6, lessor. Ohio Fuel Oil & Gas Co., lessee.  
Commenced: March 31, 1920. Completed: May 4, 1920. Shot May  
5, 1920, 110 quarts. Production: 3 bbls. oil.

## Strata.

Pennsylvanian System	Thickness	Depth
Soil, sandy .....	30	30
Sandstone .....	95	125
Shale .....	75	200
Sandstone .....	25	225
Shale .....	75	300
Sandstone .....	15	315
Shale .....	45	360
Sandstone .....	240	600
Shale .....	60	660
Sandstone .....	40	700
Shale .....	25	725
Sandstone .....	85	810
Shale .....	35	845
Sandstone .....	5	850
Shale .....	10	860

## Mississippian System.

Limestone (Big Lime) .....	120	980
Sandstone (Big Injun) .....	203	1,183
Shale .....	347	1,530
Shale, brown (Sunbury) .....	32	1,562
Sand (Berea), (oil show) .....	44	1,606
Total depth .....		1,606

**Log No. 424**

D. C. Hughes, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee.  
Commenced: September 17, 1917. Completed: October 15, 1917. Shot  
October 18, 1917, 60 quarts. Production: 2 bbls. oil.

## Strata.

Pennsylvanian System	Thickness	Depth
Shale .....	9	9
Sandstone .....	11	20
Shale, soft .....	25	45
Sandstone .....	125	170
Shale .....	30	200



Pennsylvanian System.	Thickness	Depth
Sandstone .....	12	212
Shale and shells .....	14	226
Sandstone .....	22	248
Shale .....	42	290
Sandstone .....	10	300
Shale and shell .....	15	315
Coal .....	4	319
Shale and sand .....	31	350
Sand .....	15	365
Coal .....	4	369
Shale and shells .....	156	525
Shale, soft .....	20	545
Shale and shell .....	55	600
Sand .....	6	606
Shale .....	74	680
Sand (salt) .....	345	1,025

## Mississippian System.

Shale, soft .....	33	1,058
Limestone (Little Lime) .....	13	1,071
Shale (pencil cave) .....	2	1,073
Limestone (Big Lime) .....	122	1,195
Sandstone (Big Injun) .....	55	1,250
Shale .....	5	1,255
Limestone .....	20	1,275
Shale and shells .....	270	1,545
Limestone .....	13	1,558
Shale and shells .....	113	1,671
Shale, brown (Sunbury) .....	25	1,696
Sandstone (Berea) .....	21½	1,717½
Total depth .....		1,717½

## Log No. 425

M. H. Johns, No. 2, lessor. New Domain Oil & Gas Co., lessee. Location: Near Louisa. Shot January 30, 1920, 80 quarts. Production: 3 bbls. oil per day.

## Strata.

Pennsylvanian System	Thickness	Depth
Gravel .....	40	40
Sandstone .....	22	62
Coal .....	4	66
Sandstone .....	14	80

Pennsylvanian System.	Thickness	Depth
Sandstone .....	150	230
Sandstone (cow run) .....	30	260
Shale .....	50	310
Sandstone .....	100	410
Shale .....	225	635
Sand (salt) .....	173	808
Shale .....	15	823
Sandstone .....	68	891

## Mississippian System.

Shale (pencil cave) .....	22	913
Limestone (Big Lime) .....	120	1,033
Sandstone (Big Injun) .....	55	1,088
Shale and shells .....	566	1,654
Shale, black (Sunbury) .....	20	1,674
Sandstone (Berea) .....	27½	1,701½
Total depth .....		1,701½

First oil, 1674-1684.

Second oil, 1692-1696.

## Log No. 426

Wm. Justice, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Near Louisa. Commenced: May 26, 1920. Completed: June 28, 1920. Shot June 29, 1920, 90 quarts. Production: 4 bbls. oil per day.

## Strata.

Pennsylvanian System	Thickness	Depth
Soil .....	14	14
Sandstone .....	16	30
Shale .....	30	60
Sandstone .....	40	100
Shale, blue .....	40	140
Sandstone .....	70	210
Shale, blue .....	495	705
Sand (salt) .....	185	890
Shale, blue .....	10	900
Sandstone (salt) .....	130	1,030

## Mississippian System.

Sandstone (Maxon) .....	35	1,065
Shale (pencil cave) .....	15	1,080
Limestone (Big Lime) .....	160	1,240

Mississippian System.	Thickness	Depth
Sandstone (Big Injun) .....	80	1,320
Shale, blue .....	340	1,660
Limestone and shells .....	25	1,685
Shale, blue .....	115	1,800
Shale, brown (Sunbury) .....	15½	1,815½
Sandstone (Berea), (pay oil 1817-1842) .....	29½	1,845
Total depth .....		1,845

**Log No. 427**

Hannah Lackey, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Near Louisa. Commenced: January 12, 1914. Completed: February 17, 1914. Shot February 18, 1914, 120 quarts. Production: 4 or 5 bbls. oil when shot.

## Strata.

Pennsylvanian System	Thickness	Depth
Sand, gravel .....	19	19
Shale and sand .....	406	425
Sandstone (Little Dunkard) .....	35	460
Shale and sand .....	470	930

## Mississippian System.

Limestone (Little Lime) .....	30	960
Limestone (Big Lime) .....	175	1,135
Shale .....	25	1,160
Sandstone (Big Injun) .....	82	1,242
Shale and shells .....	353	1,595
Shale, brown (Sunbury) .....	21	1,616
Sandstone (Berea) .....	42½	1,658½
Total depth .....		1,658½

**Log No. 428**

Hannah Lackey, No. 4, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: Nov. 20, 1919. Completed: Jan. 9, 1919. Shot Jan. 10, 1919, 40 qts. Production: 5 bbls. oil.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	11	11
Sandstone .....	59	70
Shale, shelly .....	5	75

Pennsylvanian System.	Thickness	Depth
Shale, soft .....	80	155
Sandstone, buff .....	45	200
Shale, soft .....	20	220
Sandstone .....	10	230
Shale, soft .....	15	245
Sandstone .....	50	295
Shale, soft .....	15	310
Shale .....	50	360
Sandstone .....	20	380
Shale .....	30	410
Sandstone .....	30	440
Shale .....	120	560
Shale, hard .....	20	580
Shale .....	20	600
Sandstone .....	55	655
Shale, hard .....	35	690
Shale .....	10	700
Sandstone .....	90	790
Shale .....	20	810
Sand (salt) .....	90	900
Shale .....	10	910

## Mississippian System.

Sand (Maxon) .....	85	995
Shale (pencil cave) .....	5	1,000
Limestone, (Big Lime) .....	150	1,150
Sandstone (Big Injun) .....	119	1,269
Shale, sandy, fine .....	31	1,300
Shale .....	5	1,305
Shale, sandy, fine .....	45	1,350
Shale .....	100	1,450
Shale, sandy, fine .....	25	1,475
Shale and shell .....	85	1,560
Sandstone, fine .....	10	1,570
Shale and shell .....	152	1,722
Shale, brown (Sunbury) .....	28	1,750
Sandstone (Berea), (oil 1,750-1,759) .....	21	1771
Total depth .....		1,771

## Log No. 429

Hannah Lackey, No. 5, lessor. Ohio Fuel Oil & Gas Co., lessee.  
 Commenced: Sept. 27, 1919. Completed: Oct. 2, 1919. Shot Oct.  
 23, 1919, 40 qts. Production: 9 bbls. oil per day.

Strata.		
Pennsylvanian System.		Thickness Depth
Soil .....	16	16
Sandstone .....	64	80
Shale .....	70	150
Sandstone .....	100	250
Sha'e .....	70	320
Coal, (little water 320) .....	3	323
Shale .....	77	400
Shale, hard .....	40	440
Shale .....	35	475
Sandstone .....	70	545
Shale, (water) .....	55	600
Shale, hard .....	30	630
Shale and shells .....	130	760
Sandstone (salt), (water, hole flooded) .....	180	940
Mississippian System.		
Shale and shells .....	75	1,015
Sandstone (Maxon) .....	30	1,045
Shale (pencil cave) .....	21	1,066
Limestone (Big Lime) .....	152	1,218
Sandstone (Big Injun) .....	117	1,335
Shale and shell .....	428	1,763
Shale, brown (Sunbury) .....	241½	1,787½
Sandstone (Berea), (oil pay 1,789-1,799) ....	19	1,806½
Total depth .....		1,806½

**Log No. 430**

Hannah Lackey, No. 6, lessor. Ohio Fuel Oil & Gas Co., lessee.  
 Commenced: July 18, 1918. Completed: Aug. 20, 1918. Shot 60  
 qts. Production: 7 bbls. oil per day.

Strata.		
Pennsylvanian System.		Thickness Depth
Soil (41) .....	16	16
Sandstone .....	64	80
Shale .....	70	150
Sandstone .....	100	250
Shale .....	70	320
Coal (water) .....	3	323
Shale .....	77	400
Shale, hard .....	40	440
Shale .....	35	475

## Pennsylvanian System.

	Thickness	Depth
Sandstone, (water 500) .....	70	545
Shale .....	55	600
Shale, hard .....	30	630
Shale and shells .....	75	705
Sand (salt) .....	180	885
Shale and shells .....	75	960

## Mississippian System.

Sandstone (Maxon) .....	30	990
Shale .....	18	1,008
Shale (pencil cave) .....	3	1,011
Limestone (Big Lime) .....	152	1,163
Sandstone (Big Injun) .....	89	1,252
Shale and shells .....	450	1,702
Shale, brown (Sunbury) .....	23	1,725
Sandstone (Berea), (pay oil 1,725-1,736) ....	24½	1,749½
Total depth .....		1,749½

## Log No. 431

Floyd McCown, No. 1, lessor. Reuben Fork Oil Co., lessee. Location: near Busseyville, on Reuben Creek.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Soil .....	13	13
Sand, shale, etc., .....	187	200
Sandstone .....	100	300
Sandstone (Cow Run) .....	105	405
Sandstone (salt) .....	205	610
Coal .....	2	612
Sandstone .....	13	625
Shale .....	60	685
Sandstone (second salt) .....	110	795
Shale .....	90	885
Sandstone (third salt) .....	65	950
Shale .....	10	960

## Mississippian System.

Sand (Maxon) .....	80	1,040
Shale .....	12	1,052
Limestone (Little Lime) .....	5	1,057
Shale .....	5	1,062
Limestone (Big Lime) .....	188	1,250

Mississippian System.	Thickness	Depth
Shale .....	5	1,255
Sandstone (Big Injun) .....	100	1,355
Shale and shells .....	345	1,700
Shale, coffee (Sunbury) .....	22	1,722
Sandstone (Berea) .....	54	1,776
Total depth .....		1,776

**Log No. 432**

James McGlinn, No. 1, lessor. Location: Louisa Precinct. Completed: July 16, 1920. Production: 3 bbls. oil. Authority: New Domain Oil & Gas Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Gravel .....	16	16
Sandstone .....	40	56
Shale, hard .....	80	136
Sandstone .....	35	171
Shale, hard .....	60	231
Sandstone .....	50	281
Shale .....	150	431
Sandstone .....	79	510
Shale, hard .....	95	605
Sandstone .....	34	639
Shale, hard .....	100	739
Sand (salt) .....	85	824
Shale, hard .....	60	884

## Mississippian System.

Sand (Maxon) .....	100	984
Shale, hard .....	80	1,064
Limestone (Big Lime) .....	170	1,234
Sandstone (Big Injun) .....	110	1,344
Shale, hard, and shells .....	460	1,804
Shale, brown (Sunbury) .....	20	1,824
Sandstone (Berea), (oil) .....	27	1,851
Total depth .....		1,851

**Log No. 433**

E. G. McKinster, No. 1, lessor. Little Blaine Oil & Gas Co., lessee. Location: Right fork of Little Blaine's. Commenced: June, 1912. Completed: July 13, 1912.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	15	15
Shale .....	9	24
Coal .....	4	28
Sandstone .....	4	32
Shale .....	193	225
Sandstone .....	60	285
Coal .....	3	288
Sandstone .....	17	305
Shale .....	30	335
Shale, fine, hard .....	55	390
Sandstone (salt) .....	158	548
Shale .....	42	590
Sandstone .....	70	660
Shale .....	10	670
Sandstone .....	12	682
Shale .....	36	718
Coal .....	3	721
Shale .....	6	727

## Mississippian System.

Limestone (Big Lime) .....	158	885
Sandstone (Big Injun) .....	105	990
Shale .....	260	1,250
Sandstone, fine, hard .....	15	1,265
Shale .....	62	1,327
Shale, coffee (Sunbury) .....	20	1,347
Sandstone (Berea) .....	65	1,412
Shale .....	23	1,435
Total depth .....		1,435

## Log No. 434

Sophia Moffett, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee.  
 Location: near Busseyville. Commenced: Apr. 7, 1920. Completed:  
 May 24, 1920. Shot May, 25, 1920. 60 qts. Production: 2 bbls. oil  
 per day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay .....	8	8
Shale, blue .....	177	185
Sand, mountain .....	60	245
Shale, blue .....	5	250



Pennsylvanian System.	Thickness	Depth
Sandstone, (gas show) .....	130	380
Shale, blue, shells .....	450	830
Sand (salt) .....	105	935
Shale, blue .....	15	950
Mississippian System.		
Sandstone (Maxon) and shale .....	130	1,080
Shale, blue .....	15	1,095
Limestone (Little Lime) .....	10	1,105
Shale, blue, shells .....	5	1,110
Limestone (Big Lime) .....	140	1,250
Sandstone (Big Injun) .....	40	1,290
Shale, blue .....	20	1,310
Limestone shell .....	50	1,360
Shale, blue, shells .....	430	1,790
Shale, brown (Sunbury) .....	17	1,807
Sandstone (Berea) .....	35	1,842
Total depth .....		1,842

**Log No. 435**

A. L. Moore, No. 2, lessor. New Domain Oil & Gas Co., lessee.  
 Location: near Louisa. Production: 2 bbls. oil.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Gravel .....	21	21
Shale .....	80	101
Sandstone .....	40	141
Shale .....	60	201
Sandstone .....	16	217
Shale .....	83	300
Sandstone .....	65	365
Shale .....	145	510
Sandstone .....	90	600
Shale .....	150	750
Sand (salt) .....	100	850
Shale .....	70	920
Sandstone .....	35	955
Shale .....	40	995
Mississippian System.		
Sandstone (Maxon) .....	20	1,015
Limestone (Big Lime) .....	165	1,180
Sandstone (Big Injun) .....	75	1,255

Mississippian System.		Thickness	Depth
Shale, shelly .....		485	1,740
Shale, brown (Sunbury) .....		20	1,760
Sandstone (Berea) .....		30	1,790
Total depth .....			1,790

**Log No. 436**

A. L. Moore, No. 4, lessor. New Domain Oil & Gas Co., lessee.  
 Shot Jan. 20, 1920, 80 qts. Production: 2 bbls. oil.

## Strata.

Pennsylvanian System.		Thickness	Depth
Gravel .....		16	16
Sandstone .....		30	46
Shale .....		85	131
Sandstone .....		60	191
Shale .....		45	236
Sandstone .....		50	286
Shale .....		120	406
Sandstone .....		35	441
Shale .....		60	501
Sandstone .....		30	531
Shale .....		170	701
Sandstone (1st salt) .....		90	791
Shale .....		35	826
Sandstone (2nd salt) .....		115	941
Shale .....		45	986

## Mississippian System.

Sandstone (Maxon) .....	30	1,016
Limestone (Big Lime) .....	145	1,161
Sandstone (Big Injun) .....	90	1,251
Shale and shells .....	485	1,736
Shale, brown (Sunbury) .....	20	1,756
Sandstone (Berea) .....	27	1,783
Total depth .....		1,783

First oil, 1,757-1,767.

Gas, 1,773-1,777.

**Log No. 437**

A. L. Moore No. 5, lessor. New Domain Oil & Gas Co., lessee.  
Shot April 23, 1920, 80 qts. Production: Dry hole.

## Strata.

Pennsylvanian System.	Thickness	Depth
Gravel .....	14	14
Sandstone .....	26	40
Shale .....	60	100
Sandstone .....	80	180
Shale .....	200	380
Sandstone .....	150	530
Shale .....	75	605
Sand (salt) .....	320	925
Shale .....	90	1,015

## Mississippian System.

Limestone (Big Lime) .....	155	1,170
Sandstone (Big Injun) .....	45	1,215
Shale and shells .....	463	1,678
Shale, brown (Sunbury) .....	20	1,698
Sandstone (Berea) .....	30½	1,728½
Total depth .....		1,728½

**Log No. 438**

W. D. O'Neal, No. 2, lessor. Venora Oil & Gas Co., Huntington,  
W. Va., lessee. Location: Busseyville.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay, yellow .....	12	12
Sandstone, white .....	28	40
Shale, black .....	140	180
Sandstone, white .....	20	200
Shale, black .....	400	600
Sand (salt), white, (water 615) .....	390	990
Shale, blue .....	10	1,000

## Mississippian System.

Limestone (Little Lime), black .....	30	1,030
Limestone (Big Lime), white .....	120	1,150
Sandstone (Big Injun), brown .....	15	1,165
Shale, white .....	10	1,175

Mississippian System.		Thickness	Depth
Sandstone, white .....		25	1,200
Shale and shells .....		300	1,500
Shale, white .....		133	1,633
Shale, brown (Sunbury) .....		20	1,653
Sandstone (Berea) .....		61	1,714
Total depth .....			1,714

**Log No. 439**

R. J. Peters, No. 1, lessor. New Domain Oil & Gas Co., lessee.  
 Location: near Louisa. Shot 80 qts. Production: 2 bbls. oil.

## Strata.

Pennsylvanian System.		Thickness	Depth
Clay, blue .....		40	40
Quicksand .....		10	50
Sandstone .....		10	60
Coal .....		2	62
Clay .....		25	87
Sandstone .....		33	120
Shale .....		60	180
Sandstone (cow run) .....		20	200
Shale .....		120	320
Sandstone .....		30	350
Shale .....		70	420
Sandstone .....		40	460
Shale .....		115	575
Sandstone (first salt) .....		40	615
Shale .....		30	645
Sandstone (second salt) .....		155	800
Shale .....		20	820
Sandstone .....		30	850
Shale .....		15	865

## Mississippian System.

Sand (Maxon) .....	25	890
Shale .....	30	920
Limestone (Big Lime) .....	150	1,070
Sandstone (Big Injun) .....	55	1,125
Shale and shells .....	500	1,625
Shale, brown (Sunbury) .....	20	1,645
Sandstone (Berea) .....	28	1,673
Total depth .....		1,673

**Log No. 440**

R. J. Peters, No. 4, lessor. New Domain Oil & Gas Co., lessee.  
Shot 80 qts. Production: 3 bbls. oil.

## Strata.

Pennsylvanian System.	Thickness	Depth
Gravel .....	22	22
Shale .....	27	49
Sandstone .....	30	79
Shale .....	40	119
Sandstone .....	50	169
Shale .....	131	300
Sandstone .....	45	335
Shale .....	115	450
Sand (salt) .....	60	510
Shale .....	290	800
Sand (salt) .....	40	840
Shale .....	35	875

## Mississippian System.

Sand (Maxon) .....	50	925
Shale .....	25	950
Limestone (Big Lime) .....	150	1,100
Sandstone (Big Injun) .....	67	1,167
Shale and shell .....	467	1,634
Shale, brown (Sunbury) .....	20½	1,654½
Sandstone (Berea), (pay oil and gas) .....	28½	1,683
Total depth .....		1,683

Pay sand, 1,667-1,678.

Oil and gas, 1,674-1,676.

**Log No. 441**

R. J. Peters, No. 5, lessor. New Domain Oil & Gas Co., lessee.  
Shot 80 qts. Production: 3 bbls. oil.

## Strata.

Pennsylvanian System	Thickness	Depth
Gravel .....	21	21
Shale .....	25	46
Sandstone .....	100	146
Shale .....	50	196
Sandstone .....	200	396

Pennsylvanian System.		Thickness	Depth
Shale .....		154	550
Sandstone .....		70	620
Shale .....		28	648
Sand (salt) .....		130	778
Shale .....		130	908
Mississippian System.			
Sand (Maxon) .....		45	953
Shale .....		40	993
Limestone (Big Lime) .....		150	1,143
Sandstone (Big Injun) .....		70	1,213
Limestone and shale .....		478	1,691
Shale, black (Sunbury) .....		20	1,711
Sandstone (Berea), (oil 1,712-1,726, 1,731-1,734) .....		29	1,740
Total depth .....			1,740

## Log No. 442

R. J. Peters, No. 7, lessor. New Domain Oil & Gas Co., lessee.  
Shot 80 qts. Production: 3 bbls. oil per day.

## Strata.

Pennsylvanian System		Thickness	Depth
Clay, blue .....		40	40
Quicksand .....		10	50
Sandstone .....		10	60
Coal .....		2	62
Clay .....		25	87
Sandstone .....		33	120
Shale .....		60	180
Sandstone (cow run) .....		20	200
Shale .....		120	320
Sandstone .....		30	350
Shale .....		70	420
Sandstone .....		40	460
Shale .....		115	575
Sandstone (1st salt) .....		40	615
Shale .....		30	645
Sandstone (2nd salt) .....		155	800
Shale .....		20	820
Sandstone .....		30	850
Shale .....		15	865

Mississippian System.	Thickness Depth	
Sand (Maxon) .....	25	890
Shale .....	25	915
Limestone (Big Lime) .....	150	1,065
Sandstone (Big Injun) .....	55	1,120
Shale and shells .....	500	1,620
Shale, brown, (Sunbury) .....	20	1,640
Sandstone (Berea) .....	28	1,668
Total depth .....		1,668

**Log No. 443**

R. J. Peters, No. 8, lessor. New Domain Oil & Gas Co., lessee.  
 Shot Dec. 20, 1919, 60 qts. Production: 1 bbl. oil per day.

## Strata.

Pennsylvanian System	Thickness Depth	
Gravel .....	19	19
Sandstone .....	29	48
Shale .....	72	120
Sandstone .....	40	160
Shale .....	35	195
Sandstone .....	40	235
Shale .....	125	360
Sandstone .....	75	435
Shale .....	110	545
Sandstone .....	60	605
Shale .....	80	685
Sand (salt) .....	125	810
Shale .....	40	850
Sandstone .....	35	885

## Mississippian System.

Shale .....	105	990
Limestone (Big Lime) .....	160	1,150
Sandstone (Big Injun) .....	60	1,210
Shale and shell .....	488	1,698
Shale, brown (Sunbury) .....	20	1,718
Sandstone (Berea) .....	30½	1,748½
Total depth .....		1,748½

NOTE—Although not recognized by the driller, the 105 feet of shale above 990 feet probably contains the Maxon sand.

**Log No. 444**

R. J. Peters, No. 9, lessor. New Domain Oil & Gas Co., lessee.  
Shot 80 quarts. Production: 6 barrels oil per day.

## Strata.

Pennsylvanian System	Thickness	Depth
Gravel .....	16	16
Sandstone .....	40	56
Shale .....	80	136
Sandstone .....	35	171
Shale .....	60	231
Sandstone .....	50	281
Shale .....	150	431
Sandstone .....	80	511
Shale .....	95	606
Sandstone .....	34	640
Shale .....	100	740
Sand (salt) .....	85	825
Shale .....	60	885

## Mississippian System.

Sandstone .....	100	985
Shale .....	80	1,065
Limestone (Big Lime) .....	170	1,235
Sandstone (Big Injun) .....	110	1,345
Limestone, shale and shell .....	460	1,805
Shale, brown (Sunbury) .....	20	1,825
Sandstone (Berea) .....	27½	1,852½
Total depth .....		1,852½

**Log No. 445**

R. J. Peter, No. 1, lessor. New Domain Oil & Gas Co., lessee.  
Shot Feb. 20, 1920, 80 qts. Production: 6 bbls. oil.

## Strata.

Pennsylvanian System	Thickness	Depth
Gravel .....	22	22
Sandstone .....	50	72
Shale .....	40	112
Sandstone .....	85	197
Shale .....	35	232
Sandstone .....	45	277
Shale .....	150	427



Pennsylvanian System.	Thickness	Depth
Sandstone .....	80	507
Shale .....	65	572
Sandstone .....	90	662
Shale .....	100	762
Sand (salt) .....	80	842
Shale .....	25	867
Sandstone .....	125	992
Shale .....	40	1,032

## Mississippian System.

Limestone (Big Lime) .....	145	1,177
Sandstone (Big Injun) .....	65	1,242
Shale and shells .....	531	1,773
Shale, brown (Sunbury) .....	20	1,793
Sandstone (Berea) .....	25	1,818
Total depth .....		1818

1st oil, 1,793-1,808.

Oil and gas, 1,808-1,814.

## Log No. 446

W. B. Pfost, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: November 19, 1919. Completed: May 3, 1920. Shot March 4, 1920, 40 quarts. Production: 5 bbls. oil.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	12	12
Sandstone .....	14	26
Shale (red rock) .....	54	80
Sandstone .....	40	120
Shale .....	30	150
Sandstone .....	10	160
Shale .....	80	240
Sandstone .....	45	285
Shale and shells .....	65	350
Sandstone .....	20	370
Shale and shells .....	365	735
Shale, shelly .....	102	837
Sand (salt) .....	80	917
Shale and sand .....	83	1,000
Sandstone .....	30	1,030



A CLIFF OF BEREASANDSTONE.

The Berea Sandstone, productive of both oil and gas in Lawrence, Johnson and other counties, is a prominent rather evenly bedded formation on outcrop. Photo near Vanceburg by Charles Butts.

Mississippian System.	Thickness	Depth
Shale .....	30	1,060
Sandstone (Maxon) .....	55	1,115
Shale (pencil cave) .....	3	1,118
Shale, white .....	39	1,157
Limestone (Big Lime) .....	158	1,315
Sandstone (Big Injun) .....	80	1,395
Shale and shell .....	429	1,824
Shale, brown (Sunbury) .....	25	1,849
Sandstone (Berea) .....	20½	1,869½
Total depth .....		1,869½

**Log No. 477**

Thad Ranson, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: December 15, 1919. Completed: January 22, 1920. Shot January 24, 1920, 60 quarts. Production: 4 bbls. oil per day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	2	2
Sandstone bluff .....	28	30
Shale .....	100	130
Sand, mountain .....	105	235
Shale and shells .....	435	670
Sand (salt) .....	150	820
Shale .....	20	840
Sandstone .....	135	975
Shale .....	5	980

## Mississippian System.

Sandstone (Maxon), (gas at 985) .....	20	1,000
Shale .....	15	1,015
Limestone (Big Lime) .....	160	1,175
Sandstone (Big Injun) .....	77	1,252
Shale and shells .....	473	1,725
Shale, brown (Sunbury) .....	24	1,749
Sandstone (Berea), (oil pay 1750-1765) .....	23	1,772
Total depth .....		1,772

**Log No. 448**

Thad Ranson, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Near Louisa. Commenced: February 27, 1920. Completed: March 31, 1920. Production: Well dry.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	20	20
Shale, blue .....	80	100
Sand, mountain .....	50	150
Shale, blue .....	315	465
Sandstone, (oil show 500) .....	85	550
Shale, blue .....	25	575
Sand (salt) .....	215	790
Shale, blue .....	15	805

## Mississippian System.

Sandstone (Maxon) .....	70	875
Shale, blue .....	20	895
Limestone (Little Lime) .....	20	915
Shale, blue .....	10	925
Limestone (Big Lime) .....	145	1,070
Shale, blue .....	15	1,085
Sandstone (Big Injun) .....	65	1,150
Shale, blue .....	5	1,155
Limestone .....	34	1,189
Shale and shells .....	441	1,630
Shale, brown (Sunbury) .....	22½	1,652½
Sandstone (Berea) .....	55	1,707½
Shale, shelly, (dry) .....	11½	1,719
Total depth .....		1,719

**Log No. 449**

Thad Ranson, No. 3, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: April 19, 1920. Completed: May 15, 1920. Shot May 15, 1920, 60 quarts. Production: 4 bbls. oil.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	16	16
Shale .....	89	105
Coal (water) .....	2	107
Shale .....	3	110

Pennsylvanian System.	Thickness	Depth
Shale, hard .....	35	145
Shale .....	10	155
Sandstone, yellow, (water) .....	70	225
Shale .....	75	300
Sandstone .....	62	362
Shale .....	45	407
Limestone .....	31	438
Shale .....	62	500
Sandstone .....	27	527
Shale and shells .....	233	760
Sand (salt), (water flooded) .....	172	932
Mississippian System.		
Shale and shells .....	28	960
Shale and shells .....	128	1,088
Shale (pencil cave) .....	3	1,091
Limestone (Big Lime) .....	165	1,256
Sandstone (Big Injun) .....	85	1,341
Shale and shells .....	452	1,793
Shale, brown (Sunbury) .....	21	1,814
Sandstone (Berea), (1st 12 feet pay oil) ....	28	1,842
Total depth .....		1,842

**Log No. 450**

J. N. Roberts, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Busseyville District. Commenced: January 15, 1919. Completed: February 14, 1919. Shot February 19, 1919, 60 quarts. Production: 3 bbls. oil.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Soil .....	20	20
Sandstone .....	30	50
Shale .....	70	120
Sandstone, yellow .....	50	170
Shale .....	50	220
Sandstone .....	60	280
Shale .....	70	350
Limestone .....	25	375
Shale .....	35	410
Sandstone, (gas 420) .....	68	478
Shale .....	52	530
Shale and shells .....	70	600

Pennsylvanian System.		Thickness	Depth
Limestone .....		18	618
Shale and shells .....		112	730
Sandstone (salt), (gas 735) (water 750-810) .....		260	990
Mississippian System.			
Sandstone (Maxon) .....		20	1,010
Limestone (Little Lime) .....		25	1,035
Shale (pencil cave) .....		5	1,040
Limestone (Big Lime) .....		140	1,180
Shale .....		5	1,185
Sandstone (Big Injun) .....		83	1,268
Shale .....		2	1,270
Sandstone, fine, hard .....		30	1,300
Shale and shells .....		417	1,717
Shale, brown (Sunbury) .....		26	1,743
Sandstone (Berea) .....		24½	1,767½
Total depth .....			1,767½

**Log No. 451**

J. N. Roberts, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: April 28, 1920. Completed: May 29, 1920. Shot May 31, 1920, 60 quarts. Production: 6 bbls. oil.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil .....		16	16
Shale and shells .....		134	150
Sandstone .....		75	225
Shale .....		125	350
Shale, hard .....		50	400
Shale and shells .....		380	780
Sandstone (salt) .....		320	1,100
Shale .....		30	1,130
Mississippian System.			
Limestone (Little Lime) .....		5	1,135
Shale (pencil cave) .....		3	1,138
Limestone (Big Lime) .....		170	1,308
Sandstone (Big Injun) .....		62	1,370
Shale and shells .....		452	1,822
Shale, black (Sunbury) .....		20	1,842
Sandstone (Berea) .....		30½	1,872½
Total depth .....			1,872½

**Log No. 452**

H. B. Salters, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Twin Branch District. Commenced: August 26, 1919. Completed: September 23, 1919. Shot September 24, 1919, 60 quarts. Production: Gas, 150,000 cubic feet.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	16	16
Shale .....	120	136
Coal .....	2	138
Shale .....	92	230
Sandstone .....	22	252
Shale .....	128	380
Sand and shale .....	230	610
Shale .....	46	656
Sand (salt) .....	239	895

## Mississippian System.

Sandstone (Maxon) .....	35	930
Shale (pencil cave) .....	15	945
Limestone (Big Lime) .....	175	1,120
Sandstone (Big Injun) .....	80	1,200
Shale and shells .....	477	1,677
Shale, brown (Sunbury) .....	20	1,697
Sandstone (Berea) .....	27	1,724
Total depth .....		1,724

**Log No. 453**

E. E. Shannon, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Louisa District. Commenced: January 30, 1920. Completed: February 27, 1920. Shot February 28, 1920, 58 quarts. Production: 4 bbls. oil when pumped.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	20	20
Shale .....	80	100
Sandstone, yellow .....	45	145
Shale .....	105	250
Sandstone .....	75	325
Shale, hard .....	75	400
Shale (water) .....	10	410

Pennsylvanian System.		Thickness	Depth
Sandstone (Cow Run) .....		30	40
Shale .....		28	468
Sandstone .....		12	480
Shale and shells .....		120	600
Shale, hard .....		65	665
Shale, (water) .....		10	675
Sandstone (salt) .....		175	850
Shale and shells .....		100	950
Mississippian System.			
Sandstone (Maxon) .....		10	960
Shale (pencil cave) .....		5	965
Limestone (Big Lime) .....		160	1,125
Sandstone (Big Injun) .....		91	1,216
Shale and shells .....		476	1,692
Shale, brown (Sunbury) .....		22	1,714
Sandstone (Berea), (oil pay 1715-1730) ....		23	1,737
Total depth .....			1,737

**Log No. 454**

E. E. Shannon, No. 1, lessor. New Domain Oil & Gas Co., lessee.

Location: Lower Louisa Precinct. Completed: June 2, 1920. Shot June 3, 1920, 60 quarts. Production:  $2\frac{1}{2}$  bbls. oil per day.

**Strata.**

Pennsylvanian System.		Thickness	Depth
Clay .....		18	18
Sandstone .....		16	34
Shale, hard .....		50	84
Sandstone .....		40	124
Shale, hard .....		25	149
Sandstone .....		35	184
Shale, hard .....		140	324
Sandstone .....		60	384
Shale, hard .....		95	479
Sandstone .....		80	559
Shale, hard .....		125	684
Sand (salt) .....		65	749
Sandstone .....		25	774
Shale, hard .....		200	974



Mississippian System.	Thickness	Depth
Sandstone (Maxon) .....	20	994
Limestone (Big Lime) .....	20	1,014
Sandstone (Big Injun) .....	155	1,169
Shale, shelly and sandstone .....	552	1,721
Shale, brown (Sunbury) .....	20	1,741
Sandstone (Berea) .....	26	1,767
Total depth .....		1,767

### Log No. 455

Martha Taylor, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee.  
Commenced: October 8, 1918. Completed: October 28, 1918. Shot  
November 1, 1918, 60 quarts. Production: 2 bbls. oil daily.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	8	8
Sandstone .....	6	14
Shale and mud .....	46	60
Sandstone .....	20	80
Coal .....	2	82
Shale, black .....	23	105
Sandstone .....	43	148
Shale, soft .....	6	154
Sandstone .....	61	215
Shale and shells .....	20	235
Coal .....	3	238
Shale and shells .....	97	335
Sandstone .....	17	352
Coal .....	3	355
Shale .....	35	390
Sandstone .....	10	400
Shale .....	220	620
Shale, hard .....	20	640
Shale, white .....	10	650
Sandstone .....	66	716
Shale .....	8	724
Sandstone (salt) .....	116	840
Shale .....	6	846
Sandstone .....	14	860
Limestone, black .....	30	890
Shale .....	6	896

Mississippian System.	Thickness	Depth
Sand (Maxon) .....	29	925
Shale, hard .....	25	950
Shale, soft .....	15	965
Limestone (Little Lime) .....	20	985
Shale (Pencil Cave) .....	3	988
Limestone (Big Lime) .....	162	1,150
Sandstone (Big Injun) .....	62	1,212
Sandstone, fine, hard .....	48	1,260
Shale and shells .....	400	1,660
Shale, brown (Sunbury) .....	28	1,688
Sandstone (Berea) .....	24½	1,712½
Total depth .....		1,712½

**Log No. 456**

T. W. Taylor, No. 5, lessor. Location: Lower Louisa Precinct.  
 Completed: April 22, 1920. Production: The well was abandoned.  
 Authority: The New Domain Oil & Gas Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Gravel .....	14	14
Sandstone .....	26	40
Shale, hard .....	60	100
Sandstone .....	80	180
Shale, hard .....	200	380
Sandstone .....	150	530
Shale, hard .....	75	605
Sand (salt), (salt water) .....	320	925
Shale, hard .....	90	1,015

## Mississippian System.

Limestone (Big Lime) .....	155	1,170
Sandstone (Big Injun) .....	45	1,215
Shale, hard, and limestone .....	463	1,678
Shale, brown (Sunbury) .....	20	1,698
Sandstone (Berea) .....	30½	1,728½
Total depth .....		1,728½

**Log No. 457**

John B. Thompson, No. 1, lessor. New Domain Oil & Gas Co.,  
 lessee. Shot Nov. 11, 1919, 80 quarts. Production: ¼ bbl. oil.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay .....	20	20
Sandstone .....	175	195
Shale .....	330	525
Shale, white .....	90	615
Sandstone .....	200	815
Shale, hard .....	79	894

## Mississippian System.

Limestone (Big Lime) .....	145	1,039
Sandstone (Big Injun) .....	60	1,099
Shale and shell .....	387	1,486
Shale, brown (Sunbury) .....	20	1,506
Sandstone (Berea) .....	68	1,574
Total depth .....		1,574

## Log No. 458

John B. Thompson, No. 2, lessor. New Domain Oil & Gas Co., lessee.  
 Shot January 6, 1920, 70 quarts. Production: 1 bbl. oil.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay .....	20	20
Sandstone .....	180	200
Shale .....	110	310
Shale .....	340	650
Sandstone .....	350	1,000
Shale .....	51	1,051

## Mississippian System.

Limestone (Big Lime) .....	135	1,186
Shale .....	20	1,206
Sandstone (Big Injun) .....	25	1,231
Shale and shells .....	417	1,648
Shale, brown (Sunbury) .....	20	1,668
Sandstone (Berea) .....	57½	1,725½
Total depth .....		1,725½

**Log No. 459**

John B. Thompson, No. 3, lessor. New Domain Oil & Gas Co., lessee.  
Location: Busseyville Precinct. Completed: July 19, 1920. Production:  
2 or 3 bbls. oil.

## Strata.

Pennsylvanian System.	Thickness	Depth
Gravel .....	14	14
Sandstone .....	150	164
Shale, hard .....	200	364
Sandstone .....	300	664
Sand (salt) .....	360	1,024
Shale, hard .....	52	1,076
Mississippian System.		
Limestone (Big Lime) .....	150	1,226
Sandstone (Big Injun) .....	35	1,261
Limestone and shells .....	125	1,386
Shale, hard .....	261	1,647
Shale, brown (Sunbury) .....	20	1,667
Sand (Berea) .....	66½	1,733½
Total depth .....		1,733½

**Log No. 460**

C. M. Waller, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Near Potters. Commenced: November 2, 1918. Completed December 18, 1918. Shot December 21, 1918, 60 quarts. Production: 5 or 6 bbls. oil.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay .....	14	14
Sandstone .....	18	32
Wood .....	48	80
Sandstone, yellow .....	70	150
Shale, (water) .....	25	175
Shale, hard .....	51	226
Shale .....	29	255
Sandstone .....	60	315
Shale .....	45	360
Sandstone .....	90	450
Shale and shells .....	50	500
Shale, hard .....	70	570

Pennsylvanian System.	Thickness	Depth
Shale .....	30	600
Sandstone, (oil show 610) .....	30	630
Shale and shells .....	100	730
Shale .....	20	750
Sandstone (salt), (water 780) .....	80	830
Shale .....	5	835
Shale, hard .....	35	870
Mississippian System.		
Shale, broken, and shells .....	60	930
Sandstone (Maxon) .....	20	950
Shale (pencil cave) .....	5	955
Limestone (Big Lime) .....	160	1,115
Sandstone (Big Injun) .....	85	1,200
Shale .....	10	1,210
Sand, hard, fine .....	30	1,240
Shale and shells .....	444	1,684
Shale, brown (Sunbury) .....	25	1,709
Sandstone (Berea), (gas and oil) .....	27½	1,736½
Total depth .....		1,736½

**Log No. 461**

C. M. Waller, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: May 5, 1919. Completed: July 7, 1919. Shot July 8, 1919, 60 quarts. Production: 3 bbls. oil.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Soil .....	16	16
Sandstone .....	149	165
Shale .....	50	215
Sandstone .....	75	290
Shale .....	10	300
Sandstone .....	20	320
Coal .....	3	323
Sandstone, limy .....	77	400
Shale .....	80	480
Sandstone .....	75	555
Shale .....	55	610
Sandstone .....	20	630
Shale and shells .....	160	790
Sandstone .....	19	809
Shale .....	60	869

Pennsylvanian System.		Thickness	Depth
Shale, hard, and sand .....		115	984
Sandstone .....		95	1,079
Shale .....		80	1,159
Mississippian System.			
Sand (Maxon) .....		25	1,184
Shale .....		50	1,234
Shale (Pencil Cave) .....		3	1,237
Limestone (Big Lime) .....		152	1,389
Sandstone (Big Injun) .....		90	1,479
Shale .....		26	1,505
Sand .....		40	1,545
Shale and shells .....		356	1,901
Shale, brown (Sunbury) .....		24	1,925
Sandstone (Berea), (pay oil 1926-1941) ....		25	1,950
Total depth .....			1,950

**Log No. 462**

Laura Webb, No. 1, lessor. Vanora Oil & Gas Co., Huntington, W. Va., lessee. Commenced: January 25, 1921. Completed: February 26, 1912.

**Strata.**

Pennsylvanian System.		Thickness	Depth
Gravel, brown .....		30	30
Shale, white .....		10	40
Coal, black .....		3	43
Shale, black .....		17	60
Sandstone, white .....		20	80
Shale, white .....		15	95
Sandstone, white .....		25	120
Shale, black .....		180	300
Sandstone, white .....		25	325
Shale, brown .....		50	375
Shale, white .....		75	450
Shale, black .....		30	480
Sandstone, white .....		405	885
Mississippian System.			
Limestone (Big Lime), white .....		130	1,015
Sandstone (Big Injun), white .....		10	1,025
Shale and shells .....		453	1,478
Shale, gray .....		21	1,499

Mississippian System.	Thickness	Depth
Sand .....	35	1,534
Shale, black (Sunbury) .....	3	1,537
Sandstone (Berea), white .....	21	1,558
Shale, black .....	26	1,584
Total depth .....		1,584

NOTE—This record is irregular in the last 26 feet. Black shale does not occur as a parting in the Berea sandstone.

### Log No. 463

F. H. Yates, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Near Louisa. Commenced: April 30, 1912. Completed: June 4, 1912. Production: 3 bbls. oil. Authority: Wayne Oil Co.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Sandstone, gray .....	20	20
Shale .....	40	60
Sandstone, (2 bailers at 65) .....	72	132
Shale .....	8	140
Sandstone .....	70	210
Shale .....	120	330
Sandstone, (show oil) .....	30	360
Shale and sand .....	100	460
Sandstone .....	10	470
Shale .....	90	560
Sandstone .....	40	600
Shale .....	47	647
Sand (salt), (water flood 705) .....	163	810
Shale .....	5	815
Shale and sandstone .....	145	960

#### Mississippian System.

Shale .....	10	970
Limestone (Little Lime) .....	20	990
Shale (Pencil Cave) .....	5	995
Limestone (Big Lime) .....	165	1,160
Shale .....	5	1,165
Sandstone (Big Injun) .....	60	1,225
Shale and shells .....	480	1,705
Sandstone (Berea), (pay oil) .....	48	1,753
Total depth .....		1,753

## Abbreviated Logs and "Sand" Records of Lawrence County.

**Log No. 464**

John D. Adkins, No. 1, lessor. Big Blaine Oil & Gas Co., lessee.  
Shot 60 quarts. Well abandoned.

Top of Berea sand .....	1,564
Pay sand .....	12
Bottom hole .....	1,621

**Log No. 465**

H. C. Austin, No. 1, lessor. Big Blaine Oil & Gas Co., lessee. Shot  
65 quarts.

Top of Berea sand .....	1,825
Pay .....	1,825-1,860
Total depth .....	1,868

**Log No. 466**

H. C. Austin, No. 2, lessor. Big Blaine Oil & Gas Co., lessee. Shot  
70 quarts.

Top of Berea sand .....	1,847½
Pay sand .....	1,847½-1,852
Break, 3 feet .....	
Total depth .....	1,878½

**Log No. 467**

Tom Ball, lessor. Frank Yates, lessee. Location: Mattie. Pro-  
duction: Gas and oil.

Top of limestone (Big Lime) .....	540
Top of sandstone (Berea) .....	1,090

**Log No. 468**

F. R. Bussey, No. 1, lessor. New Domain Oil & Gas Co., lessee.  
Commenced: June 5, 1917.

	Thicknes	Depth
Limestone (Big Lime) .....	147	971
Sandstone (Big Injun) and (Squaw) .....	50	1,021
Shale, brown (Sunbury) .....	25	1,475
Sandstone (Berea) .....		1,475
Total depth .....		1,475



**Log No. 469**

F. R. Bussey, No. 3, lessor. New Domain Oil & Gas Co., lessee. Shot 60 quarts.

Top of limestone (Big Lime) .....	815
Sandstone (Berea) .....	1,450-1,516

**Log No. 470**

Hester Carter, No 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Near Fallsburg. Commenced: December 27, 1915. Completed: January 27, 1916. Production:  $\frac{1}{2}$  bbl. oil, 150,000 cubic feet gas. Shot January 29, 1916, 120 quarts, 1 bbl. oil after shot.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Sandstone (salt) .....	258	858
Mississippian System.		
Limestone (Big Lime) .....	183	1,083
Sandstone (Big Injun) .....	40	1,140
Sandstone (Berea) .....	40	1,694
Total depth .....		1,694

**Log No. 471**

Hester Carter, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: December 22, 1916. Completed: January 29, 1917. Shot January 31, 1917, 110 quarts. Production: 5 bbls. oil per day.

	Thickness	Depth
Salt, sand and water .....	...	...
Big Lime .....	125	1,230
Berea sand .....	6	1,835
Shale .....	6	1,842
Sand .....	22	1,865
Gas sand, 1,843 .....		
Total depth .....		1,865

**Log No. 472**

J. W. Carter, No. 1, lessor. Ophir Oil Co., lessee. Location: Near Fullers, on Buck Branch, and Big Blaine Creek.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Sandstone, (fresh water) .....	600	600
Sandstone (salt) .....	110	710

## Mississippian System.

	Thickness	Depth
Sandstone (Maxton), ( $\frac{1}{2}$ million cubic feet gas)	140	850
Limestone (Big Lime) .....	150	1,000
Sandstone (Big Injun) .....	106	1,106
Sandstone (Berea) .....	449	1,555
Total depth .....		1,555

14 feet in.

## Log No. 473

Joseph Carter, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: July 1, 1914. Completed: July 22, 1914. Shot July 30, 1914, 120 quarts. Production:  $1\frac{1}{2}$  bbls. oil per day.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Sandstone (cow run), (show oil) .....	25	495
Sandstone (salt) .....	220	890

## Mississippian System.

Limestone (Big Lime) .....	165	1,115
Sandstone (Big Injun) .....	90	1,205
Sandstone (Berea) .....	46 $\frac{1}{2}$	1,707
Total depth .....		1,707

## Log No. 474

John R. Chapman, No. 1, lessor. Dameron Oil Co., lessee. Location: On Lick Creek. Commenced: May 3, 1910. Production: 3 bbls. oil.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Soil .....	16	16
Sandstone (salt) .....	928	944

## Mississippian System.

Limestone (Big Lime) .....	164	1,092
Shale .....	557	1,649
Sand, coffee .....	42	1,691
Sandstone (Berea), (oil) .....	13	1,704
Total depth .....		1,704

Pay 1651-1670.

**Log No. 475**

James L. Clark, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Near Busseyville. Commenced: July 28, 1915. Completed: August 20, 1915. Shot August 23, 1915. Production: Gas, 200,000 cubic feet.

Strata.		
Pennsylvanian System.		Thickness Depth
Coal	.....	5 270
Sandstone (salt)	.....	165 890
Mississippian System.		
Limestone (Big Lime)	.....	155 1,185
Sandstone (Big Injun)	.....	108 1,293
Sandstone (Berea)	.....	52 1,805
Total depth	.....	1,805

**Log No. 476**

A. Collinsworth, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Near Louisa. Commenced: May 8, 1915. Completed: June 22, 1915. Shot June 28, 1915, 140 quarts. Production: 2 bbls. oil per day.

Strata.		
Pennsylvanian System.		Thickness Depth
Sandstone (salt)	.....	207 1,000
Mississippian System.		
Limestone (Big Lime)	.....	165 1,285
Sandstone (Big Injun)	.....	45 1,330
Sandstone (Berea)	.....	49 1,893
Total depth	.....	1,893

**Log No. 477**

A. Collinsworth, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: June 28, 1915. Completed: July 22, 1915. Shot July 24, 1915, 175 quarts. Production:  $\frac{1}{2}$  bbl. oil per day.

Strata.		
Pennsylvanian System.		Thickness Depth
Coal	.....	2 132
Coal	.....	4 234
Sandstone (salt)	.....	180 750
Mississippian System.		
Limestone (Big Lime)	.....	130 1,198
Sandstone (Berea)	.....	55 1,712
Total depth	.....	1,712

**Log No. 478**

A. Collinsworth, No. 3, lessor. Ohio Fuel Oil & Gas Co., lessee. Commenced: August 27, 1915. Completed: November 16, 1915. Shot November 22, 1915, 115 quarts, 3 bbls. after shot. Production: 4 bbls. oil per day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Coal .....	3	198
Coal .....	2	242
Sandstone (salt) .....	150	850
Mississippian System.		
Limestone (Big Lime) .....	140	1,245
Sandstone (Big Injun) .....	25	1,300
Sandstone (Berea) .....	48	1,808
Total depth .....		1,808

**Log No. 479**

Malinda Dameron, No. 1, lessor. New Domain Oil & Gas Co., lessee. Completed: March 8, 1912. Shot 90 quarts.

Red Rock (Mauch Chunk) .....	835	
Limestone (Big Lime) .....	885	
Sandstone (Berea) .....	1,492	- 1,522
Total depth .....		1,522

**Log No. 480**

Aleck. Dial, No. 1, lessor. Location: Upper Laurel. Commenced: August 20, 1919. Completed: September, 1919. Shot 60 quarts. Production: 8 bbls. oil.

Top of Berea sand .....	740
Feet of sand .....	14
Total depth .....	764

**Log No. 481**

D. W. Diamond, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Near Busseyville. Commenced: February 23, 1915. Completed: March 19, 1915. Shot March 19, 1915, 115 quarts. Production: 3 bbls. oil per day.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sandstone (salt) .....	160	900

## Mississippian System.

Limestone (Big Lime) .....	175	1,235
Sandstone (Big Injun) .....	90	1,350
Shale .....	35	1,385
Sandstone (Berea) .....	56	1,834
Total depth .....		1,834

## Log No. 482

Minerva Diamond, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Near Busseyville. Commenced: October 1, 1915. Completed: October 27, 1915. Shot November 5, 1915, 90 quarts. Production: 3 bbls. oil.

## Strata.

## Pennsylvanian System.

Thickness Depth

Coal .....	5	135
Coal .....	5	270
Sandstone (salt) .....	165	860

## Mississippian System.

Limestone (Big Lime) .....	150	1,150
Sandstone (Big Injun) .....	117	1,267
Sandstone (Berea) .....	52½	1,757½
Total depth .....		1,757½

## Log No. 483

J. J. Gambill, No. 1, lessor. Union Oil & Gas Co., Mr. A. B. Ayres, Pres., Indianapolis, Ind., lessee. Location: Spring Branch. Commenced: Nov., 1917. Completed: Feb., 1918. Not shot. Production: 18 bbls. oil per day.

Top of (Berea) sand .....	650
Feet of sand .....	40
Total depth of well .....	690

## Log No. 484

J. J. Gambill, No. 2, lessor. Location: Spring Branch. Commenced: Oct., 1919. Completed: Nov., 1919. Well shot 60 qts., pumping water July 5, 1920. Production: 35 bbls. oil.

Top of (Berea) sand .....	711
Feet of sand .....	40
Total depth .....	758

**Log No. 485**

J. J. Gambill, No. 3, lessor. Location: Spring Branch. Commenced: March 31, 1920. Completed: June 12, 1920. Production: 20 bbls. oil.

Top of Berea sand .....	982
Feet of sand .....	32
Total depth .....	1,022

**Log No. 486**

Lafe Hayes, No. 1, lessor. Cambrian Oil Co., lessee. Location: near Charles P. O. Drilled 1917. Shot and pumped. Production: Small oil and gas.

Top of Big Lime .....	600
Sandstone (Berea) .....	1,911-1,271

**Log No. 487**

John Hayes, No. 1, lessor. Cumberland Petroleum Co., lessee.

Top of Limestone (Big Lime) .....	847
Top of Sandstone (Berea) .....	1,447

**Log No. 488**

John C. Holbrook, No. 1, lessor. Location: Blaine Creek. Commenced: Jan., 1920. Completed: Feb. 7, 1920. Not shot. Production: 750,000 cu. ft. gas.

Top of Berea sand .....	714
Feet of sand .....	40
Total depth .....	754

**Log No. 489**

D. C. Hughes, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Busseyville Precinct. Purchased by lessee from Wayne Oil Co. Completed: May 19, 1913. Shot Oct. 18, 1917, 60 qts. Production: 2 bbls. oil per day.

Strata		
Pennsylvanian System.	Thickness	Depth
Sandstone (salt) .....	430	975
Mississippian System.		
Limestone (Big Lime) .....	165	1,160
Sandstone (Berea) .....	60½	1,718½
Total depth .....		1,719½
Hole full of water 660.		
Break, 1,670-1,688.		

**Log No. 490**

L. N. Hutchison, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee.  
 Location: 2 miles northeast of Yatesville Purchased by lessee from  
 Wayne Oil Co. Completed: Feb. 4, 1914. Production: 3 bbls. oil per  
 day.

Strata		Thickness	Depth
Pennsylvanian System.			
Sandstone (salt) .....		80	720
Mississippian System.			
Limestone (Big Lime) .....		175	1,095
Sandstone (Big Injun) .....		85	1,180
Sandstone (Berea) .....		50	1,651
Total depth .....			1,651½
Hole full of water, 665.			
Break in Injun, 1,145-1,155.			
Oil, 1,601-1,621.			
Show salt water in bottom of Berea.			

**Log No. 491**

L. N. Hutchison No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee.  
 Commenced: Feb. 14, 1917. Completed: March 14, 1917. Shot:  
 March 19, 1917, 100 qts. Production: 3 bbls. oil per day.

Strata		Thickness	Depth
Mississippian System.			
Limestone (Big Lime) .....		125	1,025
Sandstone (Big Injun) .....		45	1,170
Sandstone (Berea) .....		37	1,647
Total depth .....			1,647

**Log No. 492**

Kane, No. 1, lessor. Big Blaine Oil & Gas Co., lessee. Shot: 70  
 qts. Production: 2 bbls. oil.

Top of Berea sand .....	1,635
Pay sand .....	1,635-1,655
Gas pay .....	1,663
Total depth .....	1,675

**Log No. 493**

Mary Kelley, No. 1, lessor. Big Blaine Oil & Gas Co., lessee. Shot:  
 60 qts.

Top of Berea sand .....	1,872½
Pay sand .....	1,872½-1,878
Two ft. break .....	
Total depth .....	1,895

**Log No. 494**

Roscoe C. Miller, No. 1, lessor. Location: Blaine Creek. Commenced: Feb. 14, 1920. Completed: Feb. 26, 1920. Shot: 100 qts. Production: 8 bbls. oil.

Top of Berea sand .....	689
Feet of sand .....	41
Total depth .....	730

**Log No. 495**

Roscoe C. Miller, No. 2, lessor. Location: Blaine Creek. Commenced: March 22, 1920. Completed: April 9, 1920. Shot 100 qts. Production: 8 bbls. oil.

Top of Berea sand .....	688
Feet of sand .....	28
Total depth .....	716

**Log No. 496**

John Moore, No. 1, lessor. Location: Tarkin Branch. Commenced: June, 1918. Completed: June, 1919. Not shot. Production: 60,000 cu. ft. gas.

Top of Berea sand .....	900
Feet of sand .....	6
Total depth .....	1,860

**Log No. 497**

L. B. Mullen, No. 1, lessor. Kentucky & Oklahoma Oil Co., lessee. Location: On Brushy Creek, near Cordell.

Limestone (Big Lime) .....	403-563
Sandstone (Berea), (oil and gas show) .....	952-1,057

**Log No. 498**

W. D. O'Neal, No. 1, lessor. Venora Oil & Gas Co., Huntington, W. Va., lessee. Location: Busseyville. Commenced: Nov. 8, 1911. Completed: Nov. 28, 1911. Production: One million ft. gas in Big Injun exhausted in 1,085.

## Strata

Pennsylvanian System.	Thickness	Depth
Sandstone, (gas) .....	35	515
Sandstone (salt), (water flood 540) .....	385	900
Mississippian System.		
Limestone (Little Lime) .....	15	915
Shale (pencil cave) .....	10	925
Limestone (Big Lime) .....	160	1,085
Sandstone (Big Injun) .....	25	1,110
Sandstone (Berea) .....	23	1,580
Total depth .....		1,580



**Log No. 499**

W. B. Pfost, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Louisa District. Commenced: April 15, 1915. Completed: May 8, 1915. Shot May 8, 1915, 120 qts. Production: 3 or 4 bbls. daily.

Strata		Thickness	Depth
Pennsylvanian System.			
Sandstone (salt)	.....	180	940
Mississippian System.			
Limestone (Big Lime)	.....	160	1,260
Sandstone (Big Injun)	.....	75	1,335
Shale	.....	35	1,370
Shale, brown (Sunbury)	.....	415	1,785
Shale, hard	.....	36	1,821
Sandstone (Berea)	.....	49	1,870
Total depth	.....		1,870

**Log No. 500**

Harry Phillips, No. 1, lessor. Location: Upper Laurel. Commenced: July, 1919. Completed: Aug. 1, 1919. Not shot. Production: gas, 100,000 cu. ft.

Top of Berea sand	.....	837
Feet of sand	.....	10
Total depth	.....	936

**Log No. 501**

C. A. Rice, No. 1, lessor. Location: Blaine Creek. Commenced: July 8, 1918. Completed: Aug. 11, 1918. Shot 20 qts. Production: oil; not pumping now.

Top of Berea sand	.....	814
Feet of sand	.....	19
Total depth	.....	833

**Log No. 502**

Savage, No. 4, lessor. Big Blaine Oil & Gas Co., lessee. Shot 70 qts.

Top of Berea sand	.....	1,588
Pay	.....	1,588-1,600
Gas sand	.....	1,618-1,623
Total depth	.....	1,629

**Log No. 503**

Savage, No. 5, lessor. Big Blaine Oil & Gas Co., lessee. Shot 75	
qts.	
Top of Berea sand .....	1,605½
Bottom hole .....	1,643
Total depth .....	1,643

**Log No. 504**

Savage, No. 6, lessor. Big Blaine Oil & Gas Co., lessee. Shot 70	
qts.	
Top of Berea sand .....	1,819½
Bottom sand .....	1,857
Total depth .....	1,857

**Log No. 505**

Savage, No. 7, lessor. Big Blaine Oil & Gas Co., lessee. Shot 70	
qts.	
Top of Berea sand .....	1,608
Bottom hole .....	1,647
Total depth .....	1,647

**Log No. 506**

Savage, No. 8, lessor. Big Blaine Oil & Gas Co., lessee. Shot 70	
qts.	
Top of Berea sand .....	1,573
Pay sand .....	1,573-1,585
Total depth .....	1,603

**Log No. 507**

Savage No. 9, lessor. Big Blaine Oil & Gas Co., lessee. Shot 70	
qts.	
Top of Berea sand .....	1,598
Pay sand .....	1,598-1,628
Total depth .....	1,628

**Log No. 508**

D. W. Skaggs, No. 1, lessor. Location: Blaine Creek. Commenced: May, 1918. Completed: June, 1918. Shot 60 qts. Production: oil; not pumping now.

Top of Berea sand .....	800
Feet of sand .....	40
Total depth of well .....	840

**Log No. 509**

D. W. Skaggs, No. 2, lessor. Location: Blaine Creek. Commenced: March, 1919. Completed: April 3, 1919. Shot: 60 qts. Production: 20 bbls. oil

Top of Berea sand .....	762
Feet of sand .....	36
Total depth .....	808

**Log No. 510**

D. W. Skaggs, No. 3, lessor. Location: Blaine Creek. Commenced: May, 1919. Completed: June, 1919. Shot: 60 qts. Production: 24 bbls. oil.

Top of Berea sand .....	748
Feet of sand .....	30
Total depth .....	790

**Log No. 511**

D. W. Skaggs, No. 4, lessor. Location: Blaine Creek. Commenced: Oct., 1919. Completed: Dec. 13, 1919. Shot 60 qts. Production: 24 bbls. oil.

Top of sand .....	1,019
Feet of sand .....	34
Total depth .....	1,053

**Log No. 512**

Daniel Skaggs, No. 2, lessor. Location: Blaine Creek. Commenced: Dec. 28, 1919. Completed: Feb. 25, 1920. Shot 80 qts. Production: 20 bbls. oil.

Top of Berea sand .....	948
Feet of sand .....	35
Total depth .....	983

**Log No. 513**

M. L. Skaggs, No. 1, lessor. Location: Barn Rock Branch. Commenced: Feb. 24, 1920. Completed: March 24, 1920. Not shot. Production: Oil; not pumping.

Top of Berea sand .....	625
Feet of sand .....	40
Total depth .....	665

**Log No. 514**

Oscar Skaggs, No. 1, lessor. Location: Big Lick Branch. Commenced: April, 1918. Completed: May, 1918. Shot 60 qts. Production: 12 bbls. oil.

Top of Berea sand .....	730
Feet of sand .....	25
Total depth .....	755

**Log No. 515**

Lafayette Wellman, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Purchased by lessee from Wayne Oil Co., June 1, 1914. Location: Busseyville District. Completed: July 18, 1913. Production: 1 bbl. oil per day.

Strata		Thickness	Depth
Pennsylvanian System.			
Sandstone (salt) .....	308	938	
Mississippian System.			
Limestone (Big Lime) .....	175	1,155	
Sandstone (Berea) .....	52	1,707	
Total depth .....		1,707	
Water at 665.			
Oil 1,647-1,667.			
Oil 1,680-1,700.			

**Log No. 516**

John Yates, No. 1, lessor. Big Blaine Oil & Gas Co., lessee. Shot 70 qts.

Top of Berea sand .....	1,553
Pay .....	1,553-1,568
Shale .....	1,570
Sand .....	22 1,592
Total depth .....	1,592

**Log No. 517**

John Yates, No. 2, lessor. Big Blaine Oil & Gas Co., lessee. Shot 70 qts.

Top of Berea sand .....	1,602½
Pay .....	1,602½-1,615
Sandstone .....	28 1,643
Total depth .....	1,643



## CHAPTER VI.

### LEE COUNTY.

Production: Oil and Gas. Producing Sands: Corniferous (Devonian).  
Niagaran (Silurian).

#### Log No. 518

G. G. Adams, No. 1, lessor. Irvine Development Co., lessee. Location: Hell Creek section. Commenced: May 22, 1918. Completed: June 28, 1918. Production: 25 bbls. oil per day. Authority: Irvine Development Co.

##### Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	10	10
Sandstone and shale .....	320	330
Mississippian System.		
Limestone .....	145	475
Shale, gray .....	508	983
Devonian System.		
Shale, brown .....	152	1,135
Shale (fire clay) .....	12	1,147
Shale, hard and black .....	8	1,155
Limestone "sand" .....	10	1,165
Total depth .....		1,165

Drilled 3 inches into salt water. Well filled 325 feet while being drilled. Pumped off at 25 barrels in 4 hours.

#### Log No. 519

G. G. Adams, No. 2, lessor. Location: Hell Creek section. Commenced: July 24, 1918. Completed: August 9, 1918. Authority: Irvine Development Co.

##### Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	15	15
Sandstone and shale .....	355	370
Mississippian System.		
Limestone .....	145	515
Shale, gray .....	495	1,010
Devonian System.		
Shale, brown .....	148	1,158
Shale (fire clay) .....	14	1,172
Shale, hard, black .....	10	1,182
Limestone "sand," (oil) .....	8	1,190
Total depth .....		1,190

**Log No. 520**

G. G. Adams, No. 3, lessor. Irvine Development Co., lessee. Location: Hell Creek section. Production: Salt water was pumped from the well for 2 days; then 7 bbls. oil, then salt water again. Authority: Irvine Development Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	35	35
Sandstone and shale .....	345	380
Mississippian & Devonian Systems.		
Limestone .....	170	550
Shale, brown, and other strata .....	665	1,215
Sand, (oil) .....	6	1,221
Total depth .....		1,221

The sand was very hard and fine.

**Log No. 521**

G. G. Adams, No. 4, lessor. Irvine Development Co., lessee. Location: Hell Creek section. Commenced: March 7, 1918. Completed: March 7, 1918. Shot 30 qts. between 1,200 and 1,205 ft. Nov. 17, 1918. Authority: Irvine Development Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	30	30
Sandstone and shale .....	360	390
Mississippian & Devonian Systems.		
Limestone .....	135	525
Shale, green and brown .....	600	1,125
Fire clay and shale, brown .....	34	1,159
Shale, hard, black .....	40	1,199
Limestone "sand," (oil) .....	7	1,206
Total depth .....		1,206

Showing for a 15 barrel well. A large amount of gas with heavy pressure.

**Log No. 522**

G. G. Adams, No. 6, lessor. Atlantic Oil Producing Co., lessee. Location: Hell Creek Section. Completed: Sept. 9, 1918. Shot: 20 qts. Sept. 11, 1919, between 1,137 and 1,142 ft. Production: light oil show oil. Authority: Atlantic Oil Producing Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	5	5
Sandstone (mountain) .....	110	115
Shale, hard .....	25	140
Mississippian & Devonian Systems.		
Shale, shelly .....	10	150
Shale, hard, and shell .....	100	250
Limestone (Little Lime) .....	50	300
Shale .....	25	325
Limestone (Big Lime) .....	115	440
Shale, green and brown (lower part Chattanooga) .....	660	1,100
Shale (fire clay) .....	20	1,120
Shale, hard, black .....	17	1,137
Limestone "sand," hard .....	9½	1,146½
Total depth .....		1,146½

Casing pulled, and well plugged and abandoned.

**Log No. 523**

G. G. Adams, No. 7, lessor. Irvine Development Co, lessee. Location: Hell Creek section. Commenced: Aug. 29, 1919. Completed: Sept. 18, 1919. Shot: 20 qts. Sept. 19, 1919, between 1,212 and 1,216 feet. Pumped production after shot, 10 bbls per day. Authority: Atlantic Oil Producing Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	65	65
Sandstone (mountain) .....	105	170
Shale, shelly .....	205	375
Mississippian System.		
Limestone (Little Lime) .....	50	425
Shale, hard .....	5	430
Limestone (Big Lime) .....	95	525
Limestone, shelly, and shale, hard .....	475	1,000



Devonian System.	Thickness	Depth
Shale, brown (Chattanooga) .....	185	1,185
Shale (fire clay) .....	15	1,200
Shale, hard, black .....	10	1,210
Limestone "sand," (oil) .....	6½	1,216½
Total depth .....		1,216½

**Log No. 524**

G. G. Adams, No. 8, lessor. Irvine Development Co., lessee. Location: Hell Creek section. Commenced: Sept. 20, 1919. Completed: Oct. 15, 1919. Shot: 20 qts. Oct. 16, 1919, between 1,227 and 1,232 feet. Production: 20 bbls. oil after shot. Authority: Atlantic Oil Producing Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	50	50
Sandstone .....	10	60
Shale, hard .....	20	80
Sandstone, yellow .....	120	200
Sandstone, white .....	30	230
Shale, hard .....	10	240
Sandstone, (fresh water) .....	20	260
Shale, hard .....	75	335

## Mississippian System.

Limestone, sandy .....	45	380
Shale, hard .....	45	425
Limestone (Big Lime) .....	140	565
Shell and shale, hard .....	515	1,080

## Devonian System.

Shale, brown (Chattanooga) .....	125	1,205
Shale (fire clay) .....	11	1,216
Shale, hard, black .....	2	1,218
Limestone (pay), hard .....	2	1,220
Limestone (cap) .....	6¼	1,226¼
Limestone "sand," .....	7-1/10	1,234⅙
Total depth .....		1,234⅙

Well showed strong for 4 inches into sand.

**Log No. 526**

G. G. Adams, No. 9, lessor. Irvine Development Co., lessee. Location: Hell Creek section. Shot 20 qts. Dec. 15, 1919, between 1,283 and 1,288 ft. Average daily production: 3 bbls. oil. Authority: Irvine Development Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	130	130
Sand, hard, gray .....	35	165
Shale, hard, black .....	10	175
Sand, white, soft .....	80	255
Shale, hard, black .....	70	325
Sand, white, hard .....	15	340
Shale, hard, black .....	20	360

## Mississippian System.

Shale, hard, blue .....	20	380
Limestone (Little Lime), hard .....	20	400
Shale, blue, soft .....	8	408
Limestone (Big Lime), white, hard .....	115	523
Shale, blue, soft .....	15	538
Shale and shells .....	457	995

## Devonian System.

Shale, brown (Chattanooga) .....	170	1,160
Shale (fire clay) .....	15	1,175
Shale, black .....	12	1,187
Sand, gray, medium .....	6	1,193
Total depth .....		1,193

There was a light show of oil and gas.

**Log No. 527**

G. G. Adams, No. 10, lessor. Irvine Development Co., lessee. Location: Hell Creek section. Commenced: Oct. 13, 1919. Completed: Nov. 7, 1919. Shot: 20 qts. Nov. 8, 1919, between 1,162 and 1,167 feet. Production: beginning Nov. 10, 1919, 30 bbls. per 24 hrs. Authority and Contractor: Atlantic Oil Producing Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sandstone (mountain), yellow, medium .....	137	137
Shale and sand .....	40	177

Mississippian System.	Thickness	Depth
Shale, blue .....	88	265
Limestone, blue, sandy .....	20	285
Shale, blue .....	22	307
Limestone, blue, sandy .....	8	315
Shale, gray .....	6	321
Limestone, blue .....	87	408
Limestone, white .....	96	504
Shale, green .....	31	535
Shale, gray .....	442	977
Devonian System.		
Shale, brown (Chattanooga) .....	158	1,135
Shale (fire clay) .....	15	1,150
Shale, black .....	10	1,160
Sand .....	10½	1,170½
Total depth .....		1,170½

There was a good showing of gas and oil.

### Log No. 528

G. G. Adams, No. 11, lessor. Irvine Development Co., lessee. Location: Hell Creek Section. Commenced: November 1, 1919. Completed: November 12, 1919. Shot 30 quarts. Nov. 13, 1919, between 1211 and 1218 feet. Production: 15 bbls. per 24 hours. Authority: Atlantic Oil Producing Co.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil, yellow, soft .....	15	15
Shale, hard, black .....	40	55
Sandstone (mountain), gray, hard .....	170	225
Shale, gray, soft, (water) .....	85	310
Mississippian System.		
Limestone (Little Lime), gray, hard .....	40	350
Sand, white, soft .....	30	380
Limestone (Big Lime) .....	55	435
Shale (break), hard .....	5	440
Limestone, gray .....	10	450
Sand, white .....	30	480
Limestone, white, hard .....	70	550
Shale, blue, hard .....	485	1,035
Limestone, shelly .....	5	1,040

Devonian System.	Thickness	Depth
Shale, brown (Chattanooga) .....	150	1,190
Shale (fire clay), white, soft .....	12	1,202
Shale, black .....	9	1,211
Sand .....	10½	1,221½
Total depth .....		1,221½

There was a good showing of oil and gas.

### Log No. 529

G. G. Adams, No. 12, lessor. Irvine Development Co., lessee. Location: Fincastle Section. Commenced: November 25, 1919. Completed: December 23, 1919. Shot 30 quarts December 30, 1919. Production: Beginning January 2, 1920, 25 bbls. per 24 hours; 40 bbls. were pumped after the shot. Authority and Contractor: Atlantic Oil Producing Co.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	6	6
Sandstone (mountain) .....	114	120
Sand, red .....	55	175
Sand and shale, blue, (water) .....	96	271
Shale .....	24	295
Sand, white .....	12	307
Shale, blue, (water) .....	18	325
Sand, white .....	5	330

#### Mississippian System.

Shale, blue .....	64	394
Limestone, blue (Big Lime) .....	98	492
Limestone, white (Big Lime) .....	26	518
Shale, green .....	430	948
Shale, gray .....	5	953
Pink rock .....	18	971

#### Devonian System.

Shale, brown, hard (Chattanooga) .....	170	1,141
Shale (fire clay) .....	9	1,150
Shale, black .....	15½	1,165½
Sand .....	6	1,171½
Total depth .....		1,171½

The well filled up 300 feet.

**Log No. 530**

G. G. Adams, No. 13, lessor. Irvine Development Co., lessee. Location: Fincastle Section. Authority: Atlantic Oil Producing Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, yellow, soft .....	14	14
Shale, black, hard .....	126	140
Sandstone (mountain), white .....	125	265
Shale, blue, hard .....	50	315
Limestone, white .....	10	325
Shale, hard .....	15	340
Sand .....	25	365
Shale, hard .....	25	390
Sand, white, (water) .....	30	420

## Mississippian System.

Shale, hard .....	40	460
Limestone (Little Lime) .....	10	470
Shale, hard .....	5	475
Limestone (Big Lime) .....	25	500
Shale, blue, hard .....	290	790
Shale, gray, hard .....	155	945

## Devonian System.

Shale, brown (Chattanooga) .....	160	1,105
Shale (fire clay) .....	7	1,112
Shale, black .....	18	1,130
Limestone (cap), gray .....	3	1,133
Limestone "sand," (dry) .....	8	1,141
Total depth .....		1,141

**Log No. 531**

G. G. Adams, No. 14, lessor. Irvine Development Co., lessee. Location: Fincastle Section, southwest on Cliff. Commenced: January 23, 1920. Completed: March 2, 1920. Shot 30 quarts March 12, 1920, between 1175 and 1182 feet. Production: Oil, best well on lease. Authority and contractor: Atlantic Oil Producing Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	9	9
Sandstone (mountain) .....	127	136

Pennsylvanian System.		Thickness	Depth
Sand, red .....		12	148
Sand and shale .....		47	195
Shale .....		85	280
Sand, (water 290) .....		25	305
Mississippian System.			
Shale .....		30	335
Limestone (Little Lime) .....		25	360
Shale .....		10	370
Shale (water 380) .....		42	412
Limestone (Big Lime) .....		90	502
Shale .....		5	507
Limestone .....		5	512
Shale .....		18	530
Limestone .....		5	535
Shale .....		447	982
Devonian System.			
Shale, brown (Chattanooga) .....		163	1,145
Shale (fire clay) .....		15	1,160
Shale, black .....		10	1,170
Limestone "sand" .....		7	1,177
Total depth .....			1,177

**Log No. 532**

G. G. Adams, No. 15, lessor. Irvine Development Co., lessee. Location: West side of center, Fincastle Section. Commenced: February 7, 1920. Completed: March 12, 1920. Shot 30 quarts March 19, 1920, between 1198 and 1207 feet. Production: 20 bbls. per 24 hours, after shot. Authority: Irvine Development Co.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil .....		40	40
Sand, (water) .....		130	170
Shale, hard .....		110	280
Shale, hard (water) .....		10	290
Sand .....		20	310
Shale, hard .....		25	335
Mississippian System.			
Limestone .....		15	350
Shale, hard .....		10	360

Mississippian System.	Thickness	Depth
Limestone (Little Lime) .....	20	380
Shale, hard .....	10	390
Limestone (Big Lime) .....	145	535
Shale, hard .....	460	995
Devonian System.		
Shale, brown (Chattanooga) .....	179	1,174
Shale (fire clay) .....	12	1,186
Shale, black, hard .....	12	1,198
Sand .....	7	1,205
Total depth .....		1,205

There was a fair show of oil and a little gas.

### Log No. 533

Fraily, No. 1, lessor. Atlantic Oil Producing Co., lessee. Location: Airdale Section. Commenced: June 14, 1919. Completed: July 19, 1919. Authority: Atlantic Oil Producing Co.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	20	20
Sandstone (mountain), (fresh water) .....	80	100
Shell and shale, hard .....	180	280
Mississippian System.		
Limestone (Little Lime) .....	35	315
Shale .....	5	320
Limestone (Big Lime) .....	120	440
Limestone, shell and shale, hard .....	475	915
Devonian System.		
Shale, brown (Chattanooga) .....	160	1,075
Shale (fire clay) .....	15	1,090
Shale, black, hard .....	13	1,103
Sand, (salt water), dry .....	12	1,115
Total depth .....		1,115

Casing was pulled and well abandoned. Casing record:

Length 17', 46.0'. Size  $8\frac{1}{4}"$ ,  $6\frac{1}{4}"$ .

**Log No. 534**

Frailey, No. 2, lessor. Atlantic Oil Producing Co., lessee. Location: Hell Creek Section. Commenced: September 13, 1919. Completed: October 23, 1919. Authority: Atlantic Oil Producing Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	90	90
Shale, blue .....	30	120
Shale, blue, hard-pan .....	20	140
Shale, hard .....	15	155
Sandstone (mountain), white .....	69	224
Shale, blue, hard .....	20	244
Shale, hard, dark .....	72	316

## Mississippian System.

Limestone (Big Lime) .....	140	456
Shale, blue, hard .....	34	490
Shell and shale, hard .....	60	550
Shale, blue .....	389	939

## Devonian System.

Shale, brown (Chattanooga) .....	160	1,099
Shale (fire clay) .....	6	1,105
Shale, black, hard .....	12½	1,117½
Limestone "sand," (show of oil with salt water) .....	10	1,127½
Total depth .....		1,127½

## Casing record:

Length, 256', 460'. Size, 8¼", 6¼".

The casing was pulled and the well plugged and abandoned.

**Log No. 535**

Dan Frailey, No. 2, lessor. Commenced: September 17, 1918. Authority: The Ohio Oil Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, brown, soft .....	20	20
Shale, shelly, brown, hard .....	20	40
Shale blue, soft .....	100	140

## Mississippian System.

Limestone (Big Lime), hard, white .....	135	275
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Mississippian System.	Thickness	Depth
Shale, green, soft .....	15	290
Shale and shells, hard and blue .....	80	370
Shale, hard, blue, soft .....	330	700
Devonian System.		
Shale brown, soft .....	175	875
Shale (fire clay), gray, soft .....	25	900
Limestone (cap rock), hard, brown .....	27	927
Limestone "sand," brown, soft .....	5	932
Limestone, hard, white .....	58	990
Total depth .....		990

**Log No. 536**

Taylor Gilbert, No. 1, lessor. Location: Southwest of and near Fincastle. Commenced: August 3, 1919. Completed: August 22, 1919. Production: 2 bbls. oil per day. Shot with 20 quarts August 25, 1919, between 1246 and 1254 feet. Authority: Empire Oil & Gas Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay, yellow, soft .....	30	30
Shale, black, soft .....	30	60
Shell, sandy, hard .....	20	80
Shale, dark, soft .....	20	100
Sandstone (mountain), light, soft .....	85	185
Shale, black, hard .....	165	350
Sand, white, soft .....	35	385
Shale, black, soft .....	60	445
Mississippian System.		
Limestone (Big Lime), white, hard .....	120	565
Shale, sandy, green, hard .....	125	690
Shale and shells, blue, hard, soft .....	60	750
Shale, gray, soft .....	305	1,055
Devonian System.		
Shale, brown, soft .....	167	1,222
Shale (fire clay), white, soft .....	12	1,234
Shale, brown, soft .....	11	1,245
Limestone (cap), dark gray, hard .....	2	1,247
Limestone "sand," gray, hard .....	9	1,256
Total depth .....		1,256

**Log No. 537**

Hopewell, No. 5. (Shearer Tract.) Authority: W. E. Thompson.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	15	15
Sandstone (mountain) .....	95	110
Sandstone, (water) .....	15	125
Shale, soft, mud and lime .....	195	320
Mississippian System.		
Limestone (Big Lime), (6½ in. casing 520) ..	200	520
Shale, soft .....	427	947
Shale, red soft .....	8	955
Shale (fire clay) .....	10	965
Devonian System.		
Shale (Chattanooga) .....	135	1,100
Shale, soft, red .....	5	1,105
Shale, black .....	17	1,122
Fire clay (cap) .....	8	1,130
Limestone .....	38	1,168
Total depth .....		1,168

NOTE—While the top of the Mississippian System is placed just above the "Big Lime" in this and many succeeding records, it is done so simply because the driller did not differentiate the several separate formations immediately above. In this and similar cases it is altogether probable that the base of the Pottsville would come somewhat above the top of the "Big Lime."

**Log No. 538**

Kincaid, No. 1, lessor. Atlantic Oil Producing Co., lessee. Location: Hell Creek Section. Commenced: June 19, 1918. Completed: July 5, 1918. Production: Dry. Authority: Atlantic Oil Producing Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	10	10
Sandstone (mountain) .....	70	80
Shale .....	25	105
Sand and shale, hard .....	105	210

Pennsylvanian System.	Thickness	Depth
Sand .....	140	350
Shale, hard .....	25	375

## Mississippian and Devonian Systems.

Limestone (Little Lime) .....	5	380
Shale, hard .....	15	395
Limestone (Big Lime) .....	115	510
Shale, brown, hard .....	685½	1,195½
Limestone (cap) .....	2	1,197½
Limestone "sand" .....	5½	1,203
Limestone "sand," (show at 1211) .....	10	1,213
Limestone "sand" and lime, (water) .....	19	1,232
Total depth .....		1,232

Pulled, plugged below fresh water, and abandoned.

## Log No. 539

Kincaid, No. 2, lessor. Atlantic Oil Producing Co., lessee. Location: Hell Creek Section. Commenced: June 29, 1918. Completed: September 30, 1918. Authority: Atlantic Oil Producing Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	12	12
Gravel .....	6	18
Sandstone (mountain) .....	57	75
Shale, hard .....	135	210

## Mississippian System.

Limestone (Big Lime), white .....	110	320
Shale, hard .....	20	340
Limestone .....	40	380
Limestone and shale, hard .....	200	580
Shale, hard .....	260	840

## Devonian System.

Shale, brown (Chattanooga) .....	140	980
Shale (fire clay) .....	14	994
Shale, black, hard .....	11	1,005
Limestone "sand," (oil show 1008) .....	6	1,011
Limestone "sand," (salt and water) .....	11½	1,022½
Limestone "sand," (salty) .....	24½	1,047

Devonian System.		Thickness	Depth
Limestone "sand," dark	.....	20	1,067
Limestone "sand," light	.....	24	1,091
Shale	.....	20	1,111
Total depth	.....		1,111

Casing record: Length, 19', 4", 340'. Size  $8\frac{1}{4}"$ ,  $6\frac{1}{4}"$ .

### Log No. 540

Kincaid, No. 3, lessor. Atlantic Oil Producing Co., lessee. Location: Hell Creek Section. Commenced: February 13, 1919. Completed: March 19, 1919. Shot with 20 quarts February 19th, 1919. Production: 42 bbls. oil per 24 hours.

#### Strata.

Pennsylvanian System.		Thickness	Depth
Clay and gravel	.....	12	12
Sandstone (mountain)	.....	20	32
Shale, black	.....	40	72
Shale and sand	.....	26	98
Shale, black	.....	36	134
Shale, hard	.....	12	146
Shale, sandy	.....	35	181
Shale, black, hard	.....	122	303
Sand, hard, white	.....	31	334

#### Mississippian System.

Limestone (Little Lime)	.....	25	359
Shale (fire clay)	.....	7	366
Limestone (Big Lime)	.....	134	500
Shale, hard	.....	10	510
Shale, green, hard, (cased 520' 2")	.....	18	528
Shale, gray	.....	450	978

#### Devonian System.

Shale brown, soft (Chattanooga)	.....	150	1,128
Shale (fire clay)	.....	15	1,143
Shale black, hard	.....	15	1,158
Limestone (cap), (pay 10" in cap)	.....	2	1,160
Limestone "sand," (pay)	.....	2	1,162
Pocket	.....	3'9"	1,165'9"
Total depth	.....		1,165'9"

Casing record: Length, 17', 520', 2". Size,  $6\frac{1}{4}"$ .

**Log No. 541**

D. B. Kincaid, No. 4, lessor. Atlantic Oil Production Co., lessee. Location: Hell Creek Section. Shot with 20 quarts May 6, 1919. Production, beginning May 8, 1919, 20 bbls. oil per 24 hours. Authority: Atlantic Oil Production Co.

Strata.		
Pennsylvanian System.		
	Thickness	Depth
Clay, gravel and sandstone .....	75	75
Shale, sandy .....	60	135
Shale and limestone .....	187	322
Mississippian System.		
Limestone (Big Lime) .....	132	454
Shale, green, hard .....	116	570
Shale .....	170	740
Shale, blue, hard .....	130	870
Shale black, hard .....	50	920
Devonian System.		
Shale, brown .....	111	1,031
Shale, hard and mixed .....	64	1,095
Shale (fire clay) .....	15	1,110
Shale black, hard .....	7	1,117
Limestone "sand" .....	6	1,123
Total depth .....		1,123

Casing record: Length 17', 451' 10", 1120'. Size  $8\frac{1}{4}$ ",  $6\frac{1}{4}$ " 2".

**Log No. 542**

D. B. Kincaid, No. 5, lessor. Location: Airdale Section, at Squires Branch. Commenced: June 4, 1919. Completed: July 12, 1919. Shot with 20 quarts, July 14, 1919. Production: After shot, 9 bbls. pumped. Authority: Atlantic Oil Producing Co.

Strata.		
Pennsylvanian System.		
	Thickness	Depth
Soil, yellow .....	10	10
Shale and sand .....	75	85
Shale, hard .....	30	115
Sand .....	25	140
Sand .....	110	250

Mississippian System.	Thickness	Depth
Limestone (Big Lime) .....	195	445
Shale, green .....	12	457
Shale, gray .....	47	504
Limestone and shale .....	60	564
Shale .....	56	620
Limestone, dark .....	10	630
Shale, hard .....	48	678
Shale .....	237	915
Shale (red rock) .....	5	920
Shale, hard .....	20	940

## Devonian System.

Shale, brown (Chattanooga) .....	164	1,104
Shale (fire clay) .....	7	1,111
Shale, black, hard .....	4	1,115
Sand .....	11	1,126
Total depth .....		1,126

Casing record: Length 462', 18'. Size 6¼", 8¼".

## Log No. 543

D. B. Kincaid, No. 6, lessor. Atlantic Oil Producing Co., lessee. Location: Hell Creek Section. Commenced: August 2, 1919. Completed: September 1, 1919. Shot with 20 quarts, September 2, 1919. Production, beginning September 2, 1919, 2 bbls. oil per 24 hours. Average daily production after 7 days 10 bbls. Authority: Atlantic Oil Producing Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	11	11
Sandstone (mountain) .....	94	105
Coal, (good vein) .....	5	110
Sandstone .....	40	150
Shale .....	75	225
Sandstone .....	72	297
Shale .....	45	342

## Mississippian System.

Limestone (Big Lime) .....	177	519
Shale, green .....	51	570
Shale, gray .....	447	1,017

Devonian System.	Thickness	Depth
Shale, brown .....	142	1,159
Shale (fire clay) .....	10	1,169
Shale, black hard .....	14'8"	1,183'8"
Limestone "sand," (oil and gas) .....	7'8"	1,191'4"
Total depth .....		1,191'4"

Casing record: Length 21', 525'. Size 8 $\frac{1}{4}$ ", 6 $\frac{1}{4}$ ".

**Log No. 544**

D. B. Kincaid, No. 7, lessor. Atlantic Oil Producing Co., lessee.  
 Location: Hell Creek Section. Commenced: September 27, 1919. Completed: October 13, 1919. Production: Dry; plugged with lead plug and abandoned. Authority: Atlantic Oil Producing Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sandstone .....	20	20
Shale, hard .....	200	220
Shale, soft and hard .....	30	250
Shale, hard, shelly .....	45	295
Shale, hard .....	20	315

## Mississippian and Devonian Systems.

Limestone (Big Lime) .....	150	465
Shell and shale, hard .....	658	1,123
Limestone (cap) .....	2	1,125
Limestone "sand," hard (salt water 1123) ....	10	1,135
Total depth .....		1,135

Casing record: Length 11', 470'. Size, 8 $\frac{1}{4}$ ", 6 $\frac{1}{4}$ ".

**Log No. 545**

D. B. Kincaid, No. 8, lessor. Atlantic Oil Producing Co., lessee.  
 Location: Airdale Section. Commenced: October 31, 1919. Completed: November 26, 1919. Authority: Atlantic Oil Producing Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	5	5
Shale, black .....	45	50
Shale, broken, white .....	50	100

Pennsylvanian System.			Thickness	Depth
Sandstone (mountain)	.....		85	185
Sand and shell, (fresh water)	.....		40	225
Shale, black, hard	.....		25	250
Mississippian System.				
Limestone, white	.....		25	275
Shale, black, hard	.....		5	280
Limestone (Big Lime)	.....		130	410
Shale, hard	.....		5	415
Shale, hard, green	.....		15	430
Shells	.....		80	510
Shale, hard	.....		40	550
Shale, hard	.....		350	900
Devonian System.				
Shale, brown	.....		160	1,060
Shale (fire clay)	.....		10	1,070
Shale, black, hard	.....		5½	1,075½
Limestone "sand," (dry)	.....		8½	1,084
Total depth	.....			1,084
Casing record: Length, 430', 11'. Size, 6¼", 8¼. Pulled.				

**Log No. 546**

Shoemaker, No. 1, lessor. Atlantic Oil Producing Co., lessee. Location: Fincastle Section. Commenced: June 12, 1918. Completed: August 7, 1918. Shot 20 quarts. Production: Commenced producing 2 bbls. per 24 hours. Average daily production after 3 months was 7 bbls. per day. Average daily production after 6 months was 7 bbls. per day. Authority: Atlantic Oil Producing Co.

**Strata.**

Pennsylvanian System.			Thickness	Depth
Soil	.....		20	20
Sandstone (mountain)	.....		60	80
Shale	.....		180	260
Mississippian System.				
Limestone (Little Lime)	.....		20	280
Shale	.....		70	350
Limestone (Big Lime)	.....		102	452
Shale, hard	.....		508	960



Devonian System.	Thickness	Depth
Shale, brown (Chattanooga) .....	155	1,115
Shale (fire clay) .....	10	1,125
Shale, black, hard .....	8½	1,133½
Limestone "sand" (oil) .....	10	1,143½
Total depth .....		1,143½
Casing record: Length, 20', 460". Size 8¼", 6¼".		

**Log No. 547**

Shoemaker, No. 2, lessor. Atlantic Oil Producing Co., lessee. Location: Fincastle Section. Commenced: Sept. 25, 1918. Completed: Nov. 26, 1918. Shot 20 qts. between 1,191 and 1,187 feet. Production: 16 bbls. oil per 24 hours. Authority: Atlantic Oil Producing Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	7	7
Shale, sandy, soft .....	11	18
Sand, gray, hard, (water 23) .....	14	32
Shale, hard, dark .....	28	60
Sandstone (mountain), medium and hard ....	95	155
Shale, sandy .....	153	308
Mississippian System.		
Limestone (Little Lime) .....	40	348
Shale .....	42	390
Limestone (Big Lime) .....	92	482
Limestone, sandy .....	70	552
Limestone, green and medium .....	173	725
Shale, hard, black .....	132	857
Shale, gray .....	109	966
Pink rock .....	7	973
Shale, hard, green .....	25	998
Limestone, slag .....	9	1,007
Devonian System.		
Shale, brown, soft (Chattanooga) .....	148	1,155
Shale (fire clay), soft .....	10	1,165
Shale, hard, black .....	18	1,183
Shale, hard, brown .....	4½	1,187½
Limestone "sand," (oil) .....	5	1,192½
Total depth .....		1,192½

## Casing record:

Length Size  
 53'4" 8¼"  
 487'1" 6¼"

**Log No. 548**

Shoemaker, No. 3, lessor. Atlantic Oil Producing Co., lessor. Location: Fincastle Section. Commenced: Oct. 23, 1918. Completed: Nov. 14, 1918. Shot Nov. 16, 1918, 30 qts. Authority: Atlantic Oil Producing Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Shale, soil and water .....	105	105
Sandstone (mountain) .....	70	175
Shale, hard .....	163	358
Sandstone .....	60	398

## Mississippian System.

Shale, hard .....	39	437
Limestone (Big Lime) .....	113	550
Shale, hard .....	507	1,057

## Devonian System.

Shale, brown (Chattanooga) .....	141	1,198
Shale, (fire clay) .....	15	1,213
Shale, hard, black .....	7'6"	1,220'6"
Limestone (cap rock) .....	9'6"	1,230
Total depth .....		1,230

Shot into salt water.

Casing was pulled and well plugged and abandoned April 28 1919.

**Log No. 549**

Shoemaker, No. 4, lessor. Atlantic Oil Producing Co., lessee. Location: Fincastle Section. Commenced: Jan. 23, 1919. Completed: Feb. 19, 1919. Shot 20 qts. Feb. 21, 1919, between 1,196 and 1,200 feet. Authority: Atlantic Oil Producing Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sand, gravel and clay .....	85	85
Sandstone (mountain) .....	68	153
Shale .....	162	315
Sandstone .....	30	345
Shale .....	92	437
Coal .....	3	440

Mississippian System.		Thickness	Depth
Limestone (Big Lime) .....		93½	533½
Shale, blue, soft and muddy .....		481½	1,015
Devonian System.			
Shale, brown, soft (Chattanooga) .....		148	1,163
Shale, white, and fire clay .....		10	1,173
Shale, black .....		15	1,188
Limestone "sand," soft, (oil) .....		12½	1,200½
Total depth .....			1,200½

NOTE—The occurrence of the 3 feet of coal just above and in contact to the "Big Lime" is very unusual. The fact that "coal" is not reported in the other Shoemaker wells is also significant, and points toward a probable error of identification of the cuttings on the part of the driller.

### Log No. 550

Shoemaker, No. 5, lessor. Atlantic Oil Producing Co., lessee. Location: Fincastle Section. Commenced: Jan. 8, 1919. Completed: Feb. 24, 1919. Shot: 20 qts. Feb. 24, 1919, between 1,205 and 1,210 feet.

#### Strata.

Pennsylvanian System.		Thickness	Depth
Soil .....		32	32
Sand, blue .....		19	51
Shale, hard .....		16	67
Shale, sandy .....		18	85
Sandstone (mountain) .....		90	175
Shale, sandy .....		71	246
Limestone .....		16	262
Shale, dark .....		68	330
Mississippian System.			
Limestone (Little Lime) .....		41	371
Shale, sandy, white .....		4	375
Sand, white, (water) .....		13	388
Limestone, sandy .....		12	400
Shale, sandy, dark brown .....		16	416
Limestone (Big Lime) .....		121	537
Shale, shelly .....		24	561
Shale, green .....		174	735
Shale, hard, black .....		138	873
Shale .....		112	985
Sandstone, flinty .....		6	991
Shale .....		15	1,006
Shale, shelly, brown .....		9	1,015

## Devonian System.

	Thickness	Depth
Shale, brown (Chattanooga) .....	150	1,165
Shale (fire clay) .....	15	1,180
Shale, hard, black .....	20	1,200
Shale .....	5½	1,205½
Limestone "sand," (6" pay) .....	6	1,211½
Total depth .....		1,211½

## Log No. 551

Shoemaker, No. 6, lessor. Atlantic Oil Producing Co., lessee. Location: Fincastle Section. Commenced: March 10, 1919. Completed: April 29, 1919. Shot with 20 qts. between 1,515 and 1,567 feet. Shot with 20 qts. between 1,205 and 1,211 feet. Production: beginning April 29, 1919, 3 bbls. oil per day. Authority: Atlantic Oil Producing Co.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Soil .....	25	25
Sand .....	5	30
Shale .....	50	80
Sand, brown, hard .....	90	170
Shale .....	152	322
Sand, hard .....	20	342

## Mississippian System.

Shale, blue, hard .....	68	410
Limestone (Big Lime), hard .....	120	530
Shale, green .....	30	560
Shale, gray .....	70	630
Shale, red, hard .....	15	645
Shale, gray .....	380	1,025

## Devonian System.

Shale, brown (Chattanooga) .....	150	1,175
Shale (fire clay), white .....	15	1,190
Shale, hard, black .....	10	1,200
Limestone "sand" (show of oil) .....	20	1,220
Limestone "sand," white, hard, (salt water) .....	8	1,228
Limestone "sand," gray, hard (oil at 1278) .....	50	1278

## Silurian System.

Limestone "sand," gray, hard .....	27	1,305
Shale, blue, hard .....	15	1,320
Limestone, red, shaly .....	5	1,325



#### THE IRVINE-PAINT CREEK FAULT.

This section occurs a short distance above Glencirin on the Middle Fork of the Red River in Wolfe County, Kentucky, in a cut of the L. & N. R. R. The "Big Lime" (Ste. Genevieve-St. Louis) (right) is here opposite the Cuyahoga group (left) and the displacement is about 140 ft. The downthrow is on the right.

Silurian System.	Thickness	Depth
Shale, blue, hard .....	43	1,368
Limestone, red, shaly .....	22	1,390
Shale, black, hard .....	35	1,425
Limestone, red, shaly .....	5	1,430
Shale, black, hard .....	5	1,435
Limestone, red, shaly .....	5	1,440

Ordovician System.	Thickness	Depth
Shale, black, hard .....	5	1,445
Sand, gray .....	35	1,480
Shale, blue, hard .....	5	1,485
Limestone, gray, medium hard .....	310	1,795
Total depth .....		1,795

NOTE—The Devonian-Silurian contact is placed just below 1,278 feet—a driller's division. It is probable however that it occurs in the lower part of the 50 feet of limestone showing oil at 1,278, and in such a case the oil would be of Silurian origin.

#### Log No. 552

Shoemaker, No. 7, lessor. Atlantic Oil Producing Co., lessee. Location: Finecastle Section. Commenced: March 10, 1919. Authority: Atlantic Oil Producing Co.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	25	25
Sandstone (mountain) .....	89	114
Shale, blue .....	11	125
Shale, sandy, gray .....	131	256

#### Mississippian System.

Limestone (Little Lime), gray, sandy (water)	24	280
Shale, blue .....	79	359
Limestone (Big Lime), hard .....	116	475
Shale, green .....	22	497
Shale, green .....	118	615
Shale, dark blue .....	135	750

		Thickness	Depth
Mississippian System.			
Shale, light blue .....		125	875
Shale, green .....		34	909
Pink rock .....		14	923
Shale, hard, dark .....		37	960
Devonian System.			
Shale, brown (Chattanooga) .....		150	1,110
Shale (fire clay), white .....		16	1,126
Shale, black, hard .....		12	1,138
Limestone "sand," (dry) .....		10	1,148
Total depth .....			1,148

### Log No. 553

Shoemaker, No. 8, lessor. Atlantic Oil Producing Co., lessee. Location: Fincastle Section. Commenced: May 29, 1919. Completed: June 20, 1919. Authority: Atlantic Oil Producing Co.

#### Strata.

		Thickness	Depth
Pennsylvanian System.			
Soil .....		14	14
Sandstone (mountain), (fresh water 33) .....		126	140
Shale, hard .....		15	155
Shale, shelly .....		45	200
Shale .....		56	256
Shale, blue .....		44	300
Sand, gray, (fresh water) .....		22	322
Shale, gray .....		15	337
Mississippian System.			
Limestone (Little Lime) .....		46	383
Shale, blue .....		28	411
Limestone (Big Lime) .....		149	560
Shale, hard, green .....		20	580
Shale, shelly .....		20	600
Shell and shale, hard .....		100	700
Shale hard .....		275	975
Shale (red rock) .....		10	985
Shale, hard .....		5	990
Limestone, white .....		5	995
Devonian System.			
Shale, brown (Chattanooga) .....		165	1,160
Shale (fire clay) .....		10	1,170
Shale, hard, black, (dry) .....		14	1,184
Total depth .....			1,184

**Log No. 554**

Shoemaker, No. 9, lessor. Atlantic Oil Producing Co., lessee. Location: Fincastle Section. Commenced: May 24, 1919. Completed: June 16, 1919. Shot with 30 quarts. June 17, 1919, between 1159 and 1166 feet. Production: Commencing June 19, 1919, 7 bbls. per day. Average daily production after 1 day,  $3\frac{1}{2}$  bbls. Average daily production after shot,  $3\frac{1}{2}$  bbls. Authority: Atlantic Oil Producing Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	17	17
Sandstone (mountain) .....	93	110
Shale, sandy .....	25	135
Shale, blue .....	120	255
Mississippian System.		
Limestone (Little Lime) .....	37	292
Sand .....	53	345
Shale, blue .....	10	355
Limestone (Big Lime) .....	130	485
Shale, green .....	45	530
Shale, gray .....	400	930
Shale, red, sandy .....	10	940
Shale, gray .....	32	972
Devonian System.		
Shale, brown (Chattanooga) .....	154	1,126
Shale (fire clay) .....	14	1,140
Shale, black, hard .....	15	1,155
Limestone "sand" .....	15	1,170
Total depth .....		1,170

The heaviest volume of gas on this lease was in this well.

**Log No. 555**

Rhodes Hall, No. 1, lessor. Interstate Petroleum Co., lessee. Commenced: July 10, 1918. Shot with 50 quarts, September 16, 1918. Well cleaned and fully completed September 21, 1918. Authority: L. Beckner, and approved by Geo. Ogden.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	25	25
Shale, hard .....	25	50
Sand, (water) .....	25	75



Pennsylvanian System.		Thickness	Depth
Shale, hard, black .....		30	105
Shale sandy .....		30	135
Shale, gray, hard .....		40	175
Shale, dark, hard .....		15	190
Shale, limy .....		15	205
Shale, white, hard .....		10	215
Mississippian System.			
Limestone (Little Lime) .....		10	225
Sand, hard .....		5	230
Shale, hard, black .....		10	240
Limestone (Big Lime), (6¼" casing) .....		150	390
Shale, hard, white, green .....		414	804
Devonian System.			
Shale, brown (Chattanooga) .....		140	944
Shale (fire clay), (top of Irvine sand) .....		22	966
Limestone (Irvine sand), (first pay) .....		12	978
Limestone (Irvine sand), (second pay) .....		18	996
Limestone "sand," (pay and pocket) .....		4	1,000
Total depth .....			1,000

### Log No. 556

Rhodes Hall, No. 2, lessor. Lantz & Ogden, drilling contractors.  
 Commenced: September 27, 1918. Completed: November 14, 1918.  
 Shot with 40 quarts, November 22, 1918. Well cleaned and fully completed November 28, 1918. Authority: L. Beckner, and approved by George Ogden.

#### Strata.

Pennsylvanian System.		Thickness	Depth
Soil and shelly rock .....		15	15
Shale, hard, white .....		45	60
Sand, watery .....		20	80
Shale, hard, black .....		30	110
Limestone, sandy .....		30	140
Shale, hard, gray .....		40	180
Shale, hard, dark .....		15	195
Shell, limy .....		15	210
Shale, hard, white .....		10	220

## Mississippian System.

	Thickness	Depth
Limestone (Little Lime) .....	12	232
Sandstone, hard .....	5	237
Shale, hard, black, (6¼" casing 247) .....	10	247
Limestone (Big Lime) .....	123	370
Shale, green, hard .....	17	387
Sandstone, red, shaly (Big Injun) .....	9	396
Shale, hard, white .....	426	822

## Devonian System.

Shale, hard, chocolate .....	110	932
Shale (fire clay) .....	12	944
Shale, hard, black .....	5	949
Limestone "sand" .....	9	958
Limestone "sand," (first pay) .....	4	962
Limestone, sandy .....	8	970
Limestone "sand," (second pay) .....	4	974
Total depth .....		974

## Log No. 557

Richardson, No. 1, lessor. Lantz & Ogden, drilling contractors.  
Commenced: December 4, 1918. Completed: January 18, 1919. Shot,  
2 shots of 20 quarts each, January 23, 1919. Authority: L. Beckner,  
and approved by George Ogden.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Soil .....	10	10
Sand, shelly, (8¼" casing at 23) .....	15	25
Sand, hard .....	15	40
Sand, soft and yellow .....	15	55
Shale, hard, dark .....	80	135
Shell, limy .....	10	145
Shale hard, black .....	50	195

## Mississippian System.

Limestone (Little Lime) .....	40	235
Shale, hard, white .....	15	250
Limestone (Big Lime) .....	125	375
Shale, hard, green, (6¼" casing at 380) ....	20	395
Red rock or Pink (Big Injun) .....	5	400
Shale, hard, white .....	435	835

Devonian System.	Thickness	Depth
Shale, hard chocolate .....	109	944
Shale (fire clay), (top of cap rock) .....	12	956
Limestone (cap rock) .....	9	965
Limestone, (pay) .....	2	967
Limestone .....	15	982
Total depth .....		982

**Log No. 558**

J. D. Smyth, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Bulen Springs, Lee County. Commenced: May 26, 1920. Completed: June 23, 1920. Shot June 23, 1920, 10 quarts. Production: 5 bbls. oil naturally.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sandstone .....	50	50
Shale and shells .....	90	140

## Mississippian System.

Limestone (Little Lime) .....	25	165
Shale .....	10	175
Limestone (Big Lime) .....	80	255
Shale and shells .....	522	777

## Devonian System.

Shale, brown (Chattanooga) .....	128	905
Shale (fire clay) .....	11	916
Limestone "sand," (oil) .....	61	977
Total depth .....		977

First oil, 975.

Best pay, 965-970.

**Log No. 559**

J. D. Smyth, No. 2, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Bulen Springs, Lee County. Commenced: June 26, 1920. Completed: July 9, 1920. Shot July 9, 1920, 10 quarts. Production: 10 bbls. naturally.

Strata.		
Pennsylvanian System.		Thickness Depth
Soil .....	16	16
Sandstone .....	44	60
Shale .....	50	110
Sandstone (Little water 120) .....	15	125
Shale .....	25	150
Mississippian System.		
Limestone (Little Lime) .....	20	170
Shale .....	10	180
Limestone (Big Lime) .....	90	270
Shale .....	40	310
Shale, shelly .....	25	335
Shale and shells .....	430	765
Limestone .....	5	770
Devonian System.		
Shale, brown (Chattanooga) .....	130	900
Shale (fire clay) .....	20	920
Limestone "sand," (oil) .....	62	982
Total depth .....		982
First oil, 963.		
Best pay, 972-982.		

## Log No. 560

## Flahaven Logs (3-109 following).

Flahaven Land Co., No. 3, lessor. National Refining Co., Beattyville, Ky., lessee. Location: This tract consists of the eastern 1000 acres of the Eveleth Heirs farm of 2490 acres, which is situated at and above the juncture of Little Sinking and Big Sinking Creeks in Lee County, Ky. This particular 1000 acre lease lies on the waters of Big Sinking Creek, and was leased by the Flahaven Land Co.—Charles Eveleth, Pres. (Eveleth Heirs), to the National Refining Co., et. al. Another block of 1000 acres partitioned off of this same farm and located south of the mouth of Little Sinking Creek, was operated by the Ohio Oil Co. Representative logs of this latter tract are given on another page. Commenced: August 27, 1918. Completed: September 16, 1918. Production: Commenced producing September 20, 1918; production 41 hours after shot was 120 bbls. oil. Drilling contractor: McKay Bros., Fixer, Ky. Authority: National Refining Co., Beattyville, Ky., for this and the immediately following Flahaven Land Co. records (3 to 109).

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	28	28
Limestone (Big Lime), hard, gray .....	124	152
Shale brown, soft .....	458	610
Devonian System.		
Shale, black, soft (Chattanooga) .....	140	750
Shale (fire clay), gray, soft .....	27	777
Limestone, gray, medium .....	71	848
Total depth .....		848

NOTE—The Silurian-Devonian contact is toward the bottom of the last 71 feet of limestone. The driller missed the “break.”

**Log No. 561**

Flahaven, No. 4, lessor. National Refining Co. and Le Roy Adams, lessees. Completed: October 18, 1918. Production: After shot was 250 bbls. oil. Drilling contractor: John Cain, Fixer, Ky.

## Strata.

Pennsylvanian System.	Thickness	Depth
Limestone (Big Lime), hard, gray .....	115	115
Shale, brown, soft .....	510	625
Devonian System.		
Shale, black, soft (Chattanooga) .....	135	760
Shale (fire clay), gray, soft .....	18	778
Shale, gray, soft .....	4	782
Limestone, brownish gray, medium .....	62	844
Total depth .....		844

**Log No. 562**

Flahaven, No. 5, lessor. Commenced: September 28, 1918. Completed: October 18, 1918. Drilling contractor: J. A. Ross. Production: 48 hours after shot, 170 bbls. oil.

## Strata.

Mississippian System.	Thickness	Depth
Soil and other strata .....	46	46
Limestone (Big Lime), hard, gray .....	114	160
Shale, brown, soft .....	525	685

Devonian System.		Thickness	Depth
Shale, black, soft (Chattanooga) .....		135	820
Shale (fire clay), gray, soft .....		15	835
Limestone, brown, medium .....		44	879
Total depth .....			879

**Log No. 564**

Flahaven, No. 8. Commenced: October 12, 1918. Completed: November 15, 1918. Production: Commenced producing October 31, 1918; production 48 hours after shot, 480 bbls. Drilling contractor: McKay Bros., Fixer, Ky.

## Strata.

Mississippian System.		Thickness	Depth
Shale, hard, and shells, soft and gray .....		85	85
Limestone (Big Lime), hard, gray .....		112	197
Shale, hard, gray .....		20	217
Limestone, shelly, and shale, hard, gray .....		100	317
Shale, hard, gray .....		373	690

## Devonian System.

Shale, black, gray, soft (Chattanooga) .....	145	835
Shale (fire clay), gray, soft .....	18	853
Limestone, brown, gray, soft .....	35	888
Total depth .....		888

**Log No. 565**

Flahaven No. 9. Commenced: October 18, 1918. Completed: November 9, 1918. Production: Commenced producing November 9, 1918; production 24 hours after shot, 175 bbls.

## Strata.

Mississippian System.		Thickness	Depth
Soil, gray .....		38	38
Limestone, hard, broken (Big Lime in part) ..		227	265
Shale, soft .....		515	780
Devonian System.			
Shale, gray, soft (Chattanooga) .....		120	900
Shale (fire clay), brown, soft .....		12	912
Limestone, medium .....		55	967
Total depth .....			967

**Log No. 566**

Flahaven, No. 10. Commenced: Oct. 31, 1918. Completed: Nov. 27, 1918. Production: pumped 48 hours, made 300 bbls per day.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	15	15
Limestone (Big Lime), hard, gray .....	185	200
Shale, hard, gray, sandy .....	150	350
Shale, hard, blue, soft .....	310	660
Shale, hard, red, soft .....	15	675
Shale, hard, blue, soft .....	15	690
Devonian System.		
Shale, black, soft (Chattanooga) .....	145	835
Shale (fire clay), gray, soft .....	18	853
Limestone, black, soft .....	6	859
Limestone, brown, medium .....	37	896
Total depth .....		896

**Log No. 567**

Flahaven, No. 11. Commenced: November 10, 1918. Completed: December 5, 1918.

## Strata.

Mississippian System.	Thickness	Depth
Soil, hard, dark .....	16	16
Limestone (Big Lime), gray, soft .....	86	102
Shale, hard and soft, gray .....	503	605
Devonian System.		
Shale, brown, soft (Chattanooga) .....	127	732
Shale (fire clay), gray, soft .....	20	752
Shale, black, soft .....	5	757
Limestone, brown, medium .....	32	789
Total depth .....		789

**Log No. 568**

Flahaven, No. 12. Commenced: November 16, 1918. Completed: December 7, 1918. Production: Well flowed at the rate of 350 bbls. until shut in.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	10	10
Limestone (Big Lime), hard, gray .....	75	85
Shale, hard, and shells, soft, gray .....	505	590
Devonian System.		
Shale, brown, soft (Chattanooga) .....	140	730
Shale (fire clay), gray, soft .....	15	745
Shale, black, soft .....	7	752
Limestone, brown, medium .....	31	783
Total depth .....		783

**Log No. 569**

Flahaven, No. 13. Commenced: November 20, 1918. Completed: December 5, 1918. Production: Commenced producing December 11, 1918; production 24 hours after shot, 100 bbls.

## Strata.

Mississippian System.	Thickness	Depth
Soil and sandrock, soft .....	42	42
Limestone, hard, white, (Big Lime) .....	172	214
Shale, white, soft .....	459	673
Devonian System.		
Shale black (Chattanooga) .....	165	838
Shale (fire clay) and sand .....	18	856
Sand .....	37	893
Total depth .....		893

**Log No. 570**

Flahaven, No. 17. Commenced: December 16, 1918. Completed: January 20, 1919. Production: Commenced producing January 30, 1919; production 24 hours after shot, 100 bbls.



## Strata.

		Thickness	Depth
Pennsylvanian System.			
Soil .....		48	48
Sand .....		172	220
Mississippian System.			
Limestone (Big Lime) .....		140	360
Shale .....		115	475
Shale, hard, shelly .....		330	805
Shale, sandy, red .....		35	840
Shale, hard .....		20	860
Dévonian System.			
Shale, black (Chattanooga) .....		140	1,000
Shale (fire clay) .....		18	1,018
Limestone .....		41	1,059
Total depth .....			1,059

## Log No. 571

Flahaven, No. 19. Completed: March 20, 1919. Production: 24 hours after shot, 175 bbls.

## Strata.

		Thickness	Depth
Mississippian System.			
Soil, hard, brown, sandy .....		5	5
Limestone (Big Lime), gray, soft .....		100	105
Shale, green, hard .....		95	200
Shale, white hard .....		30	230
Shale, hard and soft brown .....		330	560
Shale, red, hard .....		10	570
Shale, hard, blue, soft .....		30	600
Devonian System.			
Shale, brown, soft (Chattanooga) .....		140	740
Shale (fire clay), brown, soft .....		15	755
Shale, brown, soft .....		10	765
Limestone "sand," hard, gray .....		35	800
Total depth .....			800

**Log No. 572**

Flahaven, No. 21. Commenced: January 3, 1919. Completed:  
February 6, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sandrock and shale .....	160	160
Mississippian System.		
Limestone (Big Lime) .....	160	320
Shale .....	443	763
Devonian System.		
Shale, black (Chattanooga) .....	180	943
Shale (fire clay) .....	22	965
Limestone "sand" .....	38	1,003
Total depth .....		1,003

**Log No. 573**

Flahaven, No. 22. Commenced: March 6, 1919. Completed:  
March 24, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil and sandrock, hard, dark .....	156	156
Mississippian System.		
Limestone (Big Lime), hard, gray .....	166	322
Shale, brown, soft .....	460	782
Devonian System.		
Shale, black, soft (Chattanooga) .....	180	962
Shale (fire clay), gray, soft .....	22	984
Limestone "sand," hard, gray .....	33	1,017
Total depth .....		1,017

**Log No. 574**

Flahaven, No. 24. Commenced: January 12, 1919. Completed: January 29, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	18	18
Shale, hard .....	142	160
Mississippian System.		
Limestone (Big Lime) .....	110	270
Shale, brown .....	433	703
Devonian System.		
Shale, black (Chattanooga) .....	180	883
Shale (fire clay) .....	25	908
Limestone .....	37	945
Total depth .....		945

**Log No. 575**

Flahaven, No. 25. Commenced: January 13, 1919. Completed: February 14, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	17	17
Shale, hard .....	108	125
Mississippian System.		
Limestone (Big Lime) .....	200	325
Shale, brown .....	310	635
Devonian System.		
Shale, black (Chattanooga) .....	315	950
Shale (fire clay) .....	25	975
Limestone .....	40½	1,015½
Total depth .....		1,015½

**Log No. 576**

Flahaven, No. 28. Commenced: May 7, 1919. Completed: June 13, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sand and soil, dark, hard .....	162	162
Mississippian System.		
Limestone, gray, hard (Big Lime in part) ....	203	365
Shale, soft .....	451	816
Devonian System.		
Shale, black, soft (Chattanooga) .....	160	976
Shale (fire clay), gray, soft .....	10	986
Shale, hard, gray .....	14	1,000
Limestone "sand," hard, brown .....	66	1,066
Total depth .....		1,066

NOTE—The Silurian-Devonian contact is toward the bottom of the last 66 feet of limestone.

**Log No. 577**

Flahaven, No. 29. Commenced: April 24, 1919. Completed: May 5, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, dark, soft .....	15	15
Shale, hard and soft, dark .....	140	155
Mississippian System.		
Limestone (Big Lime), hard, gray .....	150	305
Shale, hard, dark, (set casing) .....	10	315
Shale, red, sandy, hard .....	450	765
Shale hard, dark .....	10	775
Shale, soft .....	15	790
Devonian System.		
Shale, gray, soft (Chattanooga) .....	150	940
Shale, hard, dark .....	10	950
Limestone, hard, dark .....	15	965
Limestone "sand," gray, hard .....	33	998
Total depth .....		998

**Log No. 578**

Flahaven, No. 30. Commenced: March 15, 1919. Completed: April 2, 1919.

## Strata.

Pennsylvanian System. Thickness Depth

Soil and sandrock .....	235	235
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## Mississippian System.

Limestone (Big Lime), hard, gray .....	100	335
Shale, hard and soft, brown .....	509	844

## Devonian System.

Shale, black, soft (Chattanooga) .....	135	979
Shale (fire clay), gray, soft .....	25	1,004
Shale, brown, soft .....	10	1,014
Limestone, brown, hard, (pay sand) .....	36	1,050
Total depth .....		1,050

**Log No. 579**

Flahaven, No. 31. Commenced: April 26, 1919. Completed: May 19, 1919.

## Strata.

Pennsylvanian System. Thickness Depth

Sand rock, gray, soft .....	220	220
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## Mississippian System.

Limestone (Big Lime), hard, gray .....	125	345
Shale, hard, and shells, brown, soft .....	511	856

## Devonian System.

Shale, black, soft (Chattanooga) .....	120	976
Shale (fire clay), gray, soft .....	25	1,001
Shale, brown, soft .....	5	1,006
Limestone "sand," brown, hard .....	36	1,042
Total depth .....		1,042

**Log No. 580**

Flahaven, No. 32. Commenced: February 13, 1919. Completed: March 7, 1919.

## Strata.

	Thickness	Depth
Pennsylvanian System.		
Soil, dark, soft .....	190	190
Mississippian System.		
Limestone (Big Lime), hard, gray .....	95	285
Shale, sandy .....	495	780
Devonian System.		
Shale, brown, soft (Chattanooga) .....	140	920
Shale (fire clay), gray, soft .....	20	940
Limestone "sand," gray, hard .....	43	983
Total depth .....		983

**Log No. 581**

Flahaven, No. 33. Commenced: June 9, 1919. Completed: June 24, 1919.

## Strata:

	Thickness	Depth
Pennsylvanian System.		
Soil and sand, hard, dark .....	201	201
Mississippian System.		
Limestone (Big Lime), hard, gray .....	145	346
Shale, brown, soft .....	491	837
Devonian System.		
Shale, black, soft (Chattanooga) .....	125	962
Shale (fire clay), brown, soft .....	25	987
Shale, hard, black .....	4	991
Limestone "sand," hard, brown .....	36	1,027
Total depth .....		1,027

**Log No. 582**

Flahaven, No. 34. Commenced: July 11, 1919. Completed: July 24, 1919.

## Strata.

	Thickness	Depth
Pennsylvanian System.		
Soil and sandstone, hard, dark .....	115	115
Mississippian System.		
Limestone (Big Lime), gray, soft .....	134	249
Shale, hard, gray .....	496	745
Devonian System.		
Shale, black, soft (Chattanooga) .....	140	885
Shale, brown, soft .....	15	900
Limestone "sand," hard, brown .....	39	939
Total depth .....		939

**Log No. 583**

Flahaven, No. 35. Commenced: March 30, 1919. Completed: May 8, 1919.

## Strata.

Mississippian System.	Thickness	Depth
Soil, hard, dark .....	10	10
Sand, hard, gray .....	10	20
Limestone (Big Lime), hard, gray .....	180	200
Shale, shelly, gray, hard .....	40	240
Shale, hard, white .....	110	350
Shells, gray, hard, limy .....	10	360
Shale, hard, white .....	296	656
Shale (red rock), hard .....	20	676
Devonian System.		
Shale, hard, black (Chattanooga) .....	94	770
Shale, brown, soft (Chattanooga) .....	64	834
Shale (fire clay), gray, soft .....	20	854
Limestone, gray, hard .....	5	859
Limestone (pay "sand" gray, hard .....	20	879
Limestone "sand" .....	18	897
Total depth .....		897

**Log No. 584**

Flahaven, No. 36. Commenced: May 24, 1919. Completed: June 10, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, brown, hard .....	5	5
Limestone, hard, gray .....	8	13
Shale, hard, gray .....	17	30
Sand, hard, gray .....	60	90
Shale, hard, gray .....	30	120
Shale, hard, white .....	55	175
Mississippian System.		
Limestone, sandy, brown, soft .....	50	225
Shale, hard, white .....	5	230
Limestone (Big Lime), brown, hard .....	118	348
Shale, hard, brown .....	22	370
Shale, hard, white .....	440	810

Mississippian System.		Thickness	Depth
Shale (red rock), soft .....		20	830
Shale, hard, white .....		15	845
Limestone, shelly, brown, soft .....		5	850
Devonian System.			
Shale, brown, soft (Chattanooga) .....		135	985
Shale (fire clay), gray, soft .....		22	1,007
Limestone "sand," brown, hard .....		38	1,045
Total depth .....			1,045

**Log No. 585**

Flahaven, No. 37. Commenced: February 25, 1919. Completed: March 10, 1919.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil and sand, hard, dark .....		190	190
Mississippian System.			
Limestone (Big Lime), hard, gray .....		175	365
Shale, brown, soft .....		445	810
Devonian System.			
Shale, black, soft (Chattanooga) .....		178	988
Shale (fire clay), gray, soft .....		18	1,006
Sand, gray, hard .....		32	1,038
Total depth .....			1,038

**Log No. 586**

Flahaven, No. 38. Commenced: April 15, 1919. Completed: April 22, 1919.

## Strata.

Pennsylvanian System.		Thickness	Depth
Sand and soil, hard, dark .....		170	170
Mississippian System.			
Limestone (Big Lime), hard, gray .....		168	338
Shale, brown, soft .....		255	593



Devonian System.	Thickness	Depth
Shale, black, soft (Chattanooga) .....	170	763
Shale (fire clay), gray, soft .....	22	785
Limestone "sand," hard, gray .....	30	815
Total depth .....		815

**Log No. 587**

Flahaven, No. 39. Commenced: May 14, 1919. Completed: May 25, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil and sand, gray, soft .....	36	36
Shale, brown, soft .....	134	170

## Mississippian System.

Limestone (Big Lime), hard, gray .....	160	330
Shale, brown, soft .....	455	785

## Devonian System.

Shale, black, soft (Chattanooga) .....	165	950
Shale (fire clay), gray, soft .....	22	972
Limestone "sand," hard, brown .....	29	1,001
Total depth .....		1,001

**Log No. 588**

Flahaven, No. 40. Commenced: June 11, 1919. Completed: June 25, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, hard, dark .....	20	20
Shale, brown, soft .....	145	165

## Mississippian System.

Limestone (Big Lime), gray, hard .....	175	340
Shale, brown, soft .....	452	792

## Devonian System.

Shale, black, soft (Chattanooga) .....	170	962
Shale (fire clay), gray, hard .....	22	984
Limestone "sand," hard, gray .....	36½	1,020½
Total depth .....		1,020½

**Log No. 589**

Flahaven, No. 41. Commenced: July 21, 1919. Completed: August 8, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, brown, soft .....	180	180
Mississippian System.		
Limestone (Big Lime), hard, white .....	165	345
Shale, gray, soft .....	473	818
Devonian System.		
Shale black, soft (Chattanooga) .....	155	973
Shale (fire clay), white, soft .....	18	991
Limestone "sand," brown, hard .....	36	1,027
Total depth .....		1,027

**Log No. 590**

Flahaven, No. 42. Commenced: August 16, 1919. Completed: September 1, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil and sand, gray, soft .....	168	168
Mississippian System.		
Limestone (Big Lime), hard, white .....	197	365
Shale, brown, soft .....	422	787
Devonian System.		
Shale, black, soft (Chattanooga) .....	166	953
Shale (fire clay), gray, soft .....	18	971
Limestone "sand," brown, hard .....	36	1,007
Total depth .....		1,007

**Log No. 591**

Flahaven, No. 43. Commenced: September 15, 1919. Completed: October 2, 1919.

Strata.		
Pennsylvanian System.		Thickness Depth
Soil, brown, soft .....	12	12
Shale, hard, blue, shelly .....	198	210
Mississippian System.		
Limestone (Big Lime), hard, white .....	125	335
Shale, hard, blue .....	20	355
Shale, white, soft .....	315	670
Shale, hard, dark .....	4	674
Shale, hard, blue .....	126	800
Shale, red, soft .....	20	820
Shale, hard, white .....	40	860
Devonian System.		
Shale, black, soft (Chattanooga) .....	149	1,009
Limestone (cap rock), hard, gray .....	3	1,012
Limestone "sand," coarse, hard, gray .....	15	1,027
Limestone "sand," fine, gray, soft .....	41	1,068
Silurian System.		
Limestone "sand," brown sugar sand, soft ..	15	1,083
Limestone "shale," hard, blue .....	8	1,091
Total depth .....		1,091

**Log No. 592**

Flahaven, No. 44. Commenced: September 2, 1919. Completed:  
September 19, 1919.

Strata.		
Pennsylvanian System.		Thickness Depth
Soil, brown, soft .....	18	18
Shale, hard, blue .....	190	208
Mississippian System.		
Limestone (Big Lime), hard, white .....	120	328
Shale and sand, hard, blue .....	522	850
Devonian System.		
Shale, black, soft (Chattanooga) .....	122	972
Shale (fire clay), white, soft .....	18	990
Shale, hard, black .....	2	992
Limestone "sand," gray, soft .....	62	1,054

Devonian System.		Thickness	Depth
Limestone "sand," gray and brown, hard .....		5	1,059
Limestone "sand," hard .....		10	1,069
Shale, hard, blue .....		10	1,079
Total depth .....			1,079

NOTE—The Silurian-Devonian contact is toward the bottom of the 62 feet of limestone above 1054.

### Log No. 593

Flahaven, No. 45. Commenced: August 4, 1919. Completed: August 23, 1919.

#### Strata.

Pennsylvanian System.		Thickness	Depth
Soil and sand, brown, soft .....		190	190
Mississippian System.			
Limestone (Big Lime), hard, white .....		175	365
Shale, gray, soft .....		473	838
Devonian System.			
Shale, black, soft (Chattanooga) .....		170	1,008
Shale (fire clay), white, soft .....		18	1,026
Limestone "sand," hard, brown .....		36	1,062
Total depth .....			1,062

### Log No. 594

Flahaven, No. 47. Commenced: October 6, 1919. Completed: October 15, 1919.

#### Strata.

Pennsylvanian System.		Thickness	Depth
Soil, brown, soft .....		20	20
Limestone (Big Lime), hard, white .....		70	90
Shale, hard, green .....		20	110
Shale, hard, blue .....		435	545
Shale, hard, red .....		10	555
Shale, hard, gray .....		30	585

Devonian System.	Thickness	Depth
Shale, black, hard (Chattanooga) .....	150	735
Shale (fire clay), white, soft .....	10	745
Limestone "sand," gray, soft .....	10	755
Limestone "sand," hard, dark .....	10	765
Limestone "sand," hard, gray .....	10	775
Limestone "sand," hard, white .....	10	785
Limestone "sand," hard, gray .....	12	797

## Silurian System.

Limestone "sand," gray, soft, (pay) .....	10	807
Limestone "sand," hard, white .....	10	817
Shale, hard, blue .....	9	826
Total depth .....		826

## Log No. 595

Flahaven No. 48. Commenced: July 4, 1919. Completed: July 21, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, hard, dark .....	20	20
Shale, hard, gray .....	45	65

## Mississippian System.

Limestone, gray, soft, sandy .....	25	90
Shale, hard, gray .....	5	95
Limestone (Big Lime) gray, soft .....	100	195
Shale, green, soft .....	30	225
Shale, hard, gray .....	425	650
Shale, red, hard .....	20	670
Shale, hard, black .....	25	695

## Devonian System.

Shale, brown, soft (Chattanooga) .....	135	830
Shale (fire clay), brown, soft .....	21	851
Limestone "sand," brown, hard .....	40	891
Total depth .....		891

**Log No. 596**

Flahaven, No. 51. Commenced: March 15, 1919. Completed: April 3, 1919.

## Strata.

Mississippian System.	Thickness	Depth
Soil, dark, soft .....	62	62
Limestone (Big Lime), hard, gray .....	105	167
Shale, brown, soft .....	10	177
Shale brown, soft .....	483	660
Devonian System.		
Shale, black, soft (Chattanooga) .....	145	805
Shale (fire clay), gray, soft .....	18	823
Limestone "sand," brown, hard, (oil) .....	54	877
Total depth .....		877

**Log No. 597**

Flahaven, No. 53.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil and shale, hard, dark .....	100	100
Mississippian System.		
Shale, hard, gray .....	40	140
Limestone (Big Lime) hard, gray .....	120	260
Shale, hard and gray, and lime shells .....	505	765
Devonian System.		
Shale, brown, soft (Chattanooga) .....	135	900
Shale (fire clay), gray, soft .....	10	910
Lime shells, hard, gray .....	5½	915½
Limestone "sand," hard, gray, (oil) .....	32	947½
Total depth .....		947½

**Log No. 598**

Flahaven, No. 54. Commenced: April 16, 1919. Completed: April 29, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, dark, soft .....	24	24
Shale, hard .....	111	135

Mississippian System.	Thickness	Depth
Limestone (Big Lime), hard, gray .....	100	235
Shale, hard, and shells .....	495	730
Devonian System.		
Shale, brown, soft (Chattanooga) .....	135	865
Shale (fire clay), gray, soft .....	15	880
Limestone (cap rock), gray, hard .....	6	886
Limestone "sand," gray, hard .....	32	918
Total depth .....		918

**Log No. 599**

Flahaven, No. 55. Commenced: April 30, 1919. Completed: May 23, 1919.

## Strata.

Mississippian System.	Thickness	Depth
Sand and shale, hard and gray .....	62	62
Limestone (Big Lime), gray, soft .....	44	106
Shale, hard, and shells, gray soft .....	549	655
Devonian System.		
Shale brown, soft (Chattanooga) .....	145	800
Shale (fire clay), gray, soft .....	25	825
Limestone "sand," brown, hard, (oil) .....	36	861
Total depth .....		861

**Log No. 600**

Flahaven, No. 56. Commenced: May 29, 1919. Completed: June 16, 1919.

## Strata.

Mississippian System.	Thickness	Depth
Clay, gray, hard .....	15	15
Shale, hard, brown .....	65	80
Limestone (Big Lime), gray, soft .....	115	195
Shale, hard, brown .....	460	655
Shale (red rock), hard .....	10	665
Shale, hard, brown .....	15	680
Devonian System.		
Shale, black, soft (Chattanooga) .....	150	830
Shale (fire clay), gray, soft .....	10	840
Shale, hard, black .....	11	851
Limestone "sand," hard, brown, (oil) .....	37	888
Total depth .....		888

**Log No. 601**

Flahaven, No. 57. Commenced: May 22, 1919. Completed: June 5, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Shale, brown, soft .....	170	170
Mississippian System.		
Limestone (Big Lime), hard, gray .....	100	270
Shale and limestone, gray and hard .....	505	775
Devonian System.		
Shale, brown, soft (Chattanooga) .....	130	905
Shale (fire clay) and limestone (cap rock), gray, soft .....	21	926
Limestone "sand," brown, hard, (oil) .....	37½	963½
Total depth .....		963½

**Log No. 602**

Flahaven, No. 58. Commenced: June 4, 1919. Completed: June 20, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sand and shale, hard and gray .....	125	125
Mississippian System.		
Limestone (Big Lime), gray, soft .....	105	230
Shale and shells, hard and gray .....	490	720
Devonian System.		
Shale, brown, soft (Chattanooga) .....	140	860
Shale (fire clay), gray, soft .....	22	882
Limestone "sand," brown, hard .....	69	951
Total depth .....		951

NOTE—The Silurian-Devonian contact is toward the bottom of the last 69 feet of this record.



**Log No. 603**

Flahaven, No. 61. Commenced: July 23, 1919. Completed: September 11, 1919.

Strata.		
Pennsylvanian System.	Thickness	Depth
Soil, brown, soft .....	28	28
Sand and shale, hard and blue .....	112	140
Mississippian System.		
Limestone (Big Lime), hard, white .....	100	240
Shale, hard, blue .....	514	754
Devonian System.		
Shale, black, soft (Chattanooga) .....	140	894
Shale (fire clay), white, soft .....	20	914
Shale, black, hard .....	5	919
Limestone "sand," gray, soft, (pay sand) ...	8	927
Limestone "sand," hard, dark .....	20	947
Limestone "sand," light, dark .....	10	957
Limestone "sand," hard, dark .....	15	972
Silurian System.		
Limestone "sand," light, soft, (pay) .....	18	990
Limestone "sand," blue, soft .....	10	1,000
Total depth .....		1,000

**Log No. 604**

Flahaven, No. 62. Commenced: November 28, 1919. Completed: January 12, 1920.

Strata.		
Pennsylvanian System.	Thickness	Depth
Sand and rock, brown, hard .....	13	13
Sand and shale, hard, gray .....	77	90
Mississippian System.		
Limestone (Big Lime), white, soft .....	90	180
Shale, hard, and shells, gray, soft .....	490	670
Devonian System.		
Shale brown, soft (Chattanooga) .....	150	820
Shale (fire clay) .....	16	836
Limestone "sand," (oil) and shale, hard, brown	78	914
Total depth .....		914

NOTE—The Silurian-Devonian contact is within the last 78 feet of the record.

NOTE—Beginning with this lease, Flahaven No. 62, and continuing through No. 109, LeRoy Adams is given as joint lessee with the National Refining Co.

### Log No. 605

Flahaven, No. 63. Commenced: July 24, 1919. Completed August 16, 1919.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil, gray, soft .....	6	6
Shale, hard, blue .....	30	36
Mississippian System.		
Limestone (Big Lime), hard, white .....	100	136
Shale, hard, blue .....	14	150
Shale, hard, light, gritty .....	125	275
Shale, hard, dark .....	311	586
Shale, red, soft .....	20	606
Shale, hard, white .....	20	626
Devonian System.		
Shale, black (Chattanooga) .....	139	765
Shale, white, soft .....	20	785
Limestone "sand," black, hard .....	3	788
Limestone "sand," gray, hard .....	37	825
Total depth .....		825

### Log No. 606

Flahaven, No. 64. Commenced: August 1, 1919. Completed: August 16, 1919.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil, sandy, brown, hard ..	18	18
Shale, hard, gray .....	44	62
Sand, hard, gray .....	19	81
Shale, hard, gray .....	21	102
Sand, hard, white .....	18	120

Mississippian System.	Thickness	Depth
Shale (red rock), hard .....	20	140
Limestone (Big Lime), gray, soft .....	111	251
Shale, hard, green .....	14	265
Shale, hard, gray .....	465	730
Devonian System.		
Shale, brown, soft (Chattanooga) .....	130	860
Shale (fire clay), brown, soft .....	20	880
Limestone "sand," brown, hard, (oil) .....	36	916
Total depth .....		916

**Log No. 607**

Flahaven, No. 66. Commenced: August 2, 1919. Completed:  
August 21, 1919. ..

## Strata.

Mississippian System.	Thickness	Depth
Clay, brown, soft .....	16	16
Limestone (Big Lime), gray, soft .....	89	105
Shale, hard, green .....	15	120
Shale, hard, brown .....	10	130
Limestone shells, gray, hard .....	55	185
Shale, hard, green .....	15	200
Shale and shells, hard, gray .....	10	210
Shale and shells, hard, black .....	220	430
Shale, hard, red .....	130	560
Shale (red rock), brown, hard .....	20	580
Shale, brown, soft .....	30	610
Devonian System.		
Shale, gray, soft (Chattanooga) .....	133	743
Shale (fire clay), gray, soft .....	17	760
Limestone (cap rock), brown, hard .....	3½	763½
Limestone "sand," brown, hard, (oil) .....	36½	800
Total depth .....		800

**Log No. 608**

Flahaven, No. 67. Commenced: September 1, 1919. Completed:  
September 13, 1919.

## Strata.

Mississippian System.	Thickness	Depth
Soil, brown, soft .....	14	14
Sand, brown, soft .....	16	30
Limestone (Big Lime), hard, white .....	120	150
Shale, green, soft .....	250	400
Shale, gray, soft ....	210	610
Shale (red rock), soft .....	25	635
Shale, hard, white .....	25	660
Devonian System.		
Shale, black, soft (Chattanooga) .....	133	793
Shale (fire clay), white, soft .....	15	808
Limestone "sand," hard, gray .....	3	811
Limestone "sand," gray, soft .....	9	820
Limestone "sand," hard, dark .....	10	830
Limestone "sand," light, hard .....	5	835
Limestone "sand," gray, soft .....	8	843
Limestone "sand," hard, dark .....	20	863
Limestone "sand," light, soft .....	14	877
Shale, hard, blue .....	10	887
Total depth .....		887

NOTE—The Silurian-Devonian contact is within the 20 feet above 863.

## Log No. 609

Flahaven, No. 69. Commenced: September 1, 1919. Completed: September 14, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, gray, soft .....	18	18
Shale, hard, gray, shelly .....	62	80
Mississippian System.		
Limestone (Big Lime), hard, white .....	140	220
Shale, green, soft .....	480	700
Devonian System.		
Shale, black, soft (Chattanooga) .....	154	854
Shale (fire clay), white, soft .....	15	869
Limestone "sand," gray, soft .....	8	877

	Thickness	Depth
Devonian System.		
Limestone "sand," hard, dark .....	20	897
Limestone "sand," light, hard .....	8	905
Limestone "sand," dark, hard .....	10	915
Silurian System.		
Limestone "sand," light, hard .....	26½	941½
Shale, hard, blue .....	10	951½
Total depth .....		951½

**Log No. 610**

Flahaven, No. 70. Commenced: October 8, 1919. Completed: October 19, 1919.

## Strata.

	Thickness	Depth
Pennsylvanian System.		
Soil, yellow, soft .....	20	20
Sand, white, soft .....	30	50
Shale, hard, blue .....	43	93
Mississippian System.		
Limestone, hard, white, sandy .....	42	135
Limestone (Big Lime), hard, white .....	105	240
Shale, hard, black .....	126	366
Shale, hard, gray .....	329	695
Shale, red, soft, sandy .....	15	710
Shale, hard, blue .....	20	730
Devonian System.		
Shale, brown, soft (Chattanooga) .....	150	880
Shale (fire clay), white, soft .....	17	897
Limestone "sand," hard, dark .....	5	902
Limestone "sand," hard, gray .....	21	923
Limestone "sand," brown, hard .....	17	940
Limestone "sand," gray, hard .....	21	961
Silurian System.		
Shale, blue, soft .....	11	972
Total depth .....		972

**Log No. 611**

Flahaven, No. 71. Commenced: September 16, 1919. Completed: September 30, 1919.

## Strata.

	Thickness	Depth
Pennsylvanian System.		
Soil, hard, brown, sandy .....	18	18
Shale, hard, gray .....	42	60

		Thickness	Depth
Pennsylvanian System.			
Sand, hard, white .....		32	92
Shale, hard, gray .....		130	222
Mississippian System.			
Limestone (Big Lime), hard, gray .....		100	322
Shale, green, soft .....		18	340
Shale, gray, soft .....		427	767
Devonian System.			
Shale, brown, soft (Chattanooga) .....		176	943
Shale (fire clay), gray, soft .....		23	966
Limestone "sand," hard, dark, (oil) (1st pay			
981, 2d pay 1022) .....		71	1,037
Shale, hard, gray .....		12	1,049
Total depth .....			1,049

NOTE—The Devonian-Silurian contact is within the 71 feet above 1037.

### Log No. 612

Flahaven, No. 72. Commenced: July 24, 1919. Completed: August 7, 1919.

#### Strata.

		Thickness	Depth
Mississippian System.			
Soil, dark, hard .....		30	30
Limestone (Big Lime), hard, gray .....		100	130
Shale, hard, brown .....		20	150
Shale, brown, soft .....		480	630
Devonian System.			
Shale, black, soft (Chattanooga) .....		93	723
Shale (fire clay), gray, soft .....		20	743
Limestone "sand," gray, hard .....		38	781
Total depth .....			781

### Log No. 613

Flahaven, No. 73. Commenced: August 1, 1919. Completed: August 9, 1919.

#### Strata.

		Thickness	Depth
Pennsylvanian & Mississippian Systems.			
Soil and blue mud, dark, soft .....		80	80
Limestone (Big Lime), hard, gray .....		120	200
Shale, hard, gray, and lime shells .....		477	677

Devonian System.	Thickness	Depth
Shale, brown, soft (Chattanooga) .....	150	827
Shale (fire clay), gray, soft .....	21	848
Limestone "sand," brown, hard .....	36	884
Total depth .....		884

**Log No. 614**

Flahaven, No. 74. Commenced: August 26, 1919. Completed:  
October 1, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, brown, soft .....	20	20
Shale, hard, blue .....	70	90

## Mississippian System.

Limestone (Big Lime), hard, white .....	95	185
Shale, hard, green .....	15	200
Shale, hard, blue .....	100	300
Shale, hard, light, sandy .....	100	400
Shale, hard, blue .....	245	645
Shale, red, soft, sandy .....	15	660
Shale, hard, white .....	25	685

## Devonian System.

Shale, black, soft (Chattanooga) .....	139	824
Shale (fire clay), white, soft .....	20	844
Limestone "sand," gray, soft .....	12	856
Limestone "sand," hard, dark .....	39	895

## Silurian System.

Limestone "sand," light, soft .....	16	911
Shale, hard, blue .....	11 $\frac{1}{8}$	922 $\frac{1}{8}$
Total depth .....		922 $\frac{1}{8}$

**Log No. 615**

Flahaven, No. 75. Commenced: October 15, 1919. Completed:  
October 30, 1919.

## Strata.

Mississippian System.	Thickness	Depth
Soil, brown, soft .....	15	15
Shale, hard, blue .....	8	23
Limestone (Big Lime), hard, white .....	103	126
Shale, hard, blue .....	504	630

Devonian System.		Thickness	Depth
Shale, black, soft (Chattanooga) .....		136	766
Shale (fire clay), white, soft .....		20	786
Limestone (cap rock), hard, black .....		2	788
Limestone "sand," soft, gray .....		8	796
Limestone "sand," hard, dark .....		15	811
Limestone "sand," light, hard .....		15	826
Limestone "sand," hard, dark .....		18	844
Silurian System.			
Limestone "sand," light, soft .....		16	860
Shale, hard, blue .....		7	867
Total depth .....			867

**Log No. 616**

Flahaven, No. 77. Commenced: November 17, 1919. Completed: November 29, 1919.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil, brown, soft .....		12	12
Soil, sandy, light, hard .....		4	16
Soil, sandy, light, soft .....		61	77
Mississippian System.			
Limestone (Big Lime), white, hard .....		108	185
Shale, hard, white .....		35	220
Shale, hard, gray .....		195	415
Shale, hard, dark .....		235	650
Shale (red rock), soft .....		15	665
Shale, hard, gray .....		25	690
Devonian System.			
Shale, black, soft (Chattanooga) .....		140	830
Shale (fire clay), white, soft .....		17	847
Limestone (cap rock), hard, black .....		2	849
Limestone "sand," gray, soft .....		6	855
Limestone "sand," hard, dark .....		22	877
Limestone "sand," gray, medium .....		5	882
Limestone "sand," gray, medium .....		25	907
Silurian System.			
Limestone "sand," light, medium .....		9	916
Shale, blue, soft .....		11	927
Total depth .....			927



**Log No. 617**

Flahaven, No. 78. Commenced: December 12, 1919. Completed: January 16, 1920.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, yellow, soft .....	20	20
Sand, yellow, soft .....	40	60
Shale, hard, gray .....	130	190
Mississippian System.		
Limestone (Big Lime), hard, white .....	115	305
Shale, hard, gray .....	305	610
Shale, hard, black, soft .....	136	746
Shale (red rock), soft .....	15	761
Shale, hard, black, soft .....	30	791
Devonian System.		
Shale, brown, soft (Chattanooga) .....	140	931
Shale (fire clay), white, soft .....	15	946
Limestone "sand," hard, dark .....	8	954
Limestone "sand," light, hard .....	14	968
Limestone "sand," hard, dark .....	32	1,000
Silurian System.		
Limestone "sand," light, hard .....	22	1,022
Shale, blue, soft .....	10	1,032
Total depth .....		1,032

**Log No. 618**

Flahaven, No. 80. Commenced: November 8, 1919. Completed: November 29, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, brown, soft .....	18	18
Sand, light, white, soft .....	172	190
Mississippian System.		
Limestone (Big Lime), hard, white .....	143	333
Shale, hard, blue .....	63	396
Shale, hard, gray .....	420	816

Devonian System.	Thickness	Depth
Shale, black, soft (Chattanooga) .....	145	961
Shale (fire clay), white, soft .....	25	986
Limestone "sand," gray, soft .....	8	994
Limestone "sand," hard, dark .....	15	1,009
Limestone "sand," light, soft .....	7	1,016
Limestone "sand," hard, dark .....	30	1,046

Silurian System.	Thickness	Depth
Limestone "sand," light, soft .....	18	1,064
Limestone "sand," gray, soft .....	5	1,069
Shale, hard, blue, soft .....	12	1,081
Total depth .....		1,081

### Log No. 619

Flahaven, No. 81. Commenced: October, 1919. Completed: October 20, 1919.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil, brown, soft .....	5	5
Sand, yellow, soft .....	35	40
Shale, hard, blue, soft .....	150	190

#### Mississippian System.

Limestone (Big Lime), hard, white .....	140	330
Shale, hard, blue, soft .....	440	770
Shale, hard, light, soft .....	30	800

#### Devonian System.

Shale, black, soft (Chattanooga) .....	149	949
Shale, red, soft .....	20	969
Shale (fire clay), white, soft .....	15	984
Limestone "sand," gray, soft, (pay) .....	8	992
Limestone "sand," hard, dark, (no good) .....	17	1,009
Limestone "sand," gray, soft, (some pay) .....	15	1,024

#### Silurian System.

Limestone "sand," light, soft, (watery) .....	10	1,034
Limestone "sand," hard, dark .....	10	1,044
Limestone "sand," light, soft .....	10	1,054
Shale, hard, blue, soft .....	9¾	1,063¼
Total depth .....		1,063¼

**Log No. 620**

Flahaven, No. 82. Commenced: October 30, 1919. Completed: November 11, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, brown, soft .....	3	3
Soil, sandy, light, soft .....	40	43
Shale, hard, blue, soft .....	157	200
Mississippian System.		
Limestone (Big Lime), hard, white .....	136	336
Shale, hard, blue, soft .....	430	766
Shale (red rock), soft .....	20	786
Shale, hard, blue, soft .....	15	801
Devonian System.		
Shale, black, soft (Chattanooga) .....	155	956
Shale (fire clay), white, soft .....	20	976
Limestone (cap rock), hard, black .....	4	980
Limestone "sand," gray, soft, (good pay) .....	8	988
Limestone "sand," hard, dark .....	8	996
Limestone "sand," hard, light .....	18	1,014
Limestone "sand," hard, dark .....	19	1,033
Silurian System.		
Limestone "sand," light, soft .....	12	1,045
Shale, hard, blue, soft .....	9½	1,054½
Total depth .....		1,054½

**Log No. 621**

Flahaven No. 83. Commenced: Dec. 29, 1919. Completed: Jan. 13, 1920.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sand and soil, gray and soft .....	27	27
Shale, hard, gray, soft .....	43	70
Sand, gray, soft .....	10	80
Shale hard, gray, soft .....	45	125

## Mississippian System.

	Thickness	Depth
Limestone (Big Lime), white, hard .....	115	240
Shale, hard, green, soft .....	5	245
Shale hard, gray, soft .....	20	265
Shale hard, green, soft .....	6	271
Shale, hard, gray, soft .....	481	752

## Devonian System.

Shale brown, soft (Chattanooga) .....	123	875
Shale (fire clay), soft .....	18	893
Limestone "sand," brown, hard, (oil) (1st pay 896-911, 2nd pay 939-951) .....	69	962
Shale, hard, blue, soft .....	12	974
Total depth .....		974

## Log No. 622

Flahaven, No. 88. Commenced: Oct. 11, 1919. Completed: Nov.  
21, 1919.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Soil, brown, soft .....	15	15
Shale hard, blue, soft .....	100	115

## Mississippian System.

Limestone (Big Lime), hard, white .....	110	225
Shale, hard, yellow, soft .....	20	245
Shale hard, blue, soft .....	425	670
Shale (red rock) soft .....	25	695
Shale, hard, blue, soft .....	20	715

## Devonian System.

Shale, black, soft (Chattanooga) .....	140	855
Shale (fire clay), white, soft .....	15	870
Limestone "sand," gray, soft .....	57	927

## Silurian System.

Limestone "sand," hard, dark .....	11	938
Total depth .....		938

**Log No. 623**

Flahaven, No. 89. Commenced: May 4, 1920. Completed: May 18, 1920.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	7	7
Shale, hard .....	153	160
Mississippian System.		
Limestone (Big Lime) .....	105	265
Shale, hard .....	490	755
Shale (red rock) .....	10	765
Shale, hard .....	5	770
Devonian System.		
Shale, black (Chattanooga) .....	140	910
Shale (fire clay) .....	10	920
Shale, black .....	8	928
Limestone "sand" .....	68	996
Shale, hard .....	42½	1,038½
Total depth .....		1,038½

NOTE—The Silurian-Devonian contact occurs within the 68 feet above 996 feet in depth.

**Log No. 624**

Flahaven, No. 91. Commenced: Aug. 8, 1919. Completed: Sept. 16, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, gray, soft .....	30	30
Shale, hard, gray, soft, shelly .....	70	100
Shale, hard, white, soft .....	40	140
Mississippian System.		
Sand and limestone, gray, soft .....	53	193
Limestone (Big Lime), hard, white .....	102	295
Shale, green, soft .....	30	325
Shale, gray, soft .....	25	350
Grit, white, soft .....	35	385
Shale, gray, soft .....	45	430
Shells, gray, soft .....	5	435

Mississippian System.	Thickness	Depth
Shale, gray, soft .....	265	700
Shale, hard, black .....	55	755
Shale (red rock), soft .....	15	770
Shale, hard, white, soft .....	20	790
Shells, hard, dark .....	2	792

## Devonian System.

Shale brown, soft, (Chattanooga) .....	83	875
Shells, brown, hard, (Chattanooga) .....	10	885
Shale brown, soft, (Chattanooga) .....	47	932
Shale (fire clay) white, hard .....	20	952
Shale, black, hard .....	5	957
Limestone "sand," gray, soft .....	5	962
Limestone "sand," hard, dark .....	10	972
Limestone "sand," light, hard .....	8	980
Limestone "sand," dark, hard .....	5	985
Limestone "sand," dark, hard .....	5	990
Limestone "sand," light, hard .....	5	995
Limestone "sand," dark, hard .....	10	1,005

## Silurian System.

Limestone "sand," light, hard .....	20	1,025
Shale, hard, gray soft .....	10½	1,035½
Total depth .....		1,035½

## Log No. 625

Flahaven, No. 93. Commenced: Sept. 1, 1919. Completed: Sept. 13, 1919.

## Strata.

Mississippian System.	Thickness	Depth
Soil and sand, gray, soft .....	20	20
Limestone (Big Lime), white, hard .....	115	135
Shale and shells, hard and soft, light .....	467	602
Shale (red rock), soft .....	20	622
Devonian System.		
Shale, black, soft (Chattanooga) .....	130	752
Shale (fire clay), white, soft .....	16	768
Shale, black, soft .....	5	773
Limestone "sand," gray, soft, (pay sand) ...	10	783
Limestone "sand," dark, hard .....	14	797
Limestone "sand," white, hard .....	13½	810½

Silurian System.	Thickness	Depth
Limestone "sand," hard, dark .....	28½	839
Limestone "sand," light, soft .....	8	847
Shale, hard, blue, soft .....	8½	855½
Total depth .....		855½

**Log No. 626**

Flahaven, No. 94. Commenced: Sept. 11, 1919. Completed: Sept. 23, 1919.

## Strata.

Mississippian System.	Thickness	Depth
Soil, brown, soft .....	19	19
Limestone (Big Lime), hard, white .....	78	97
Shale, hard, blue, soft .....	458	555
Shale (red rock), soft .....	20	575

## Devonian System.

Shale, black, soft (Chattanooga) .....	135	710
Shale (fire clay), white, soft .....	15	725
Limestone "sand," gray, soft .....	8	733
Limestone "sand," light, soft .....	4	737
Limestone "sand," hard, dark, (fine stuff) ..	8	745
Limestone "sand," hard, dark, (coarse) .....	8	753
Limestone "sand," hard, gray .....	4	757
Limestone "sand," and shale, hard, dark, soft, (break) .....	12	769

## Silurian System.

Limestone "sand," brown sugar, gritty, brown	12	781
Shale, blue, soft .....	8	789
Total depth .....		789

**Log No. 627**

Flahaven, No. 95. Commenced: Aug. 20, 1919. Completed: Aug. 29, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, gray, soft .....	25	25
Shale, hard, blue, soft .....	105	130

Mississippian System.		Thickness	Depth
Limestone (Big Lime) white, hard	.....	112	242
Shale, hard, blue, soft	.....	20	262
Shale, hard, light, hard	.....	125	387
Shale, hard, soft	.....	333	720
Shale (red rock), soft	.....	20	740
Shale, hard, light, soft	.....	20	760
Devonian System.			
Shale, black, soft (Chattanooga)	.....	119	879
Shale (fire clay), white, soft	.....	20	899
Shale, black, and limestone (cap rock), hard..	.....	3	902
Limestone "sand," gray, hard	.....	36	938
Total depth	.....		938

**Log No. 628**

Flahaven, No. 96. Commenced: Sept. 16, 1919. Completed:  
Sept. 30, 1919.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil, brown, soft	.....	14	14
Shale, hard, blue, soft	.....	125	139
Shell, dark, hard	.....	11	150
Mississippian System.			
Shale, hard, blue, soft	.....	20	170
Shale, hard, white, soft	.....	15	185
Limestone (Big Lime), hard, white	.....	138	323
Shale, hard, blue, soft	.....	100	423
Shale, hard, light, soft, sandy	.....	100	523
Shale, hard, blue, soft	.....	267	790
Shale (red rock), soft	.....	15	805
Shale, hard, white, soft	.....	20	825
Devonian System.			
Shale, black, soft (Chattanooga)	.....	142	967
Shale (fire clay), white, soft	.....	18	985
Shale, hard, black, (cap rock)	.....	2	987
Limestone "sand," gray, soft	.....	10	997
Limestone "sand," hard, dark	.....	5	1,002
Limestone "sand," hard, dark	.....	25	1,027
Silurian System.			
Limestone "sand," light, soft	.....	29½	1,056½
Shale, hard, blue, hard	.....	12	1,068½
Total depth	.....		1,068½



**Log No. 629**

Flahaven, No. 100. Commenced: Oct. 21, 1919. Completed:  
Nov. 24, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, brown, soft .....	6	6
Sand, red, soft .....	70	76
Shale, hard, blue, soft .....	131	207

## Mississippian System.

Limestone (Big Lime) hard, white .....	117	324
Shale, hard, light, soft .....	150	474
Shale, hard, blue, soft .....	330	804
Shale (red rock), soft .....	20	824
Shale, hard, white, soft .....	20	844

## Devonian System.

Shale, black, soft (Chattanooga) .....	132	976
Shale (fire clay), white, soft .....	17	993
Limestone (cap rock), hard, black .....	2	995
Limestone "sand," gray, soft .....	8	1,003
Limestone "sand," dark, hard .....	17	1,020
Limestone "sand," gray, soft .....	7	1,027
Limestone "sand," dark, hard .....	19	1,046

## Silurian System.

Limestone "sand," brown, soft .....	16	1,062
Shale, hard, blue soft .....	11½	1,073½
Total depth .....		1,073½

**Log No. 630**

Flahaven, No. 103. Commenced: Dec. 8, 1919. Completed: Dec.  
31, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil and sand, white, gray, soft .....	180	180

## Mississippian System.

Limestone (Big Lime), white, hard .....	168	348
Shale, blue, soft .....	425	773

Devonian System.		Thickness	Depth
Shale, black, soft (Chattanooga) .....		165	938
Shale (fire clay), white, soft .....		18	956
Limestone "sand," gray, soft .....		8	964
Limestone "sand," hard, dark .....		18	982
Limestone "sand," light, soft .....		7	989
Limestone "sand," hard, dark .....		12	1,001
Silurian System.			
Limestone "sand," brown, soft .....		17	1,018
Limestone "sand," dark, soft .....		3	1,021
Shale, blue, soft .....		13	1,034
Total depth .....			1,034

**Log No. 631**

Flahaven, No. 104. Commenced: Oct. 20, 1919. Completed: Oct. 31, 1919.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil, brown, soft .....		14	14
Shale hard, blue, soft .....		114	128
Sand, white, soft .....		12	140
Shale, hard, blue, soft .....		44	184
Sand, white, soft .....		18	202
Mississippian System.			
Shale, hard, blue, soft .....		17	219
Limestone (Big Lime), hard, white .....		100	319
Shale, hard, green, soft .....		10	329
Shale, hard, blue, soft .....		475	804
Devonian System.			
Shale, black, soft (Chattanooga) .....		165	969
Shale (fire clay), white, soft .....		20	989
Limestone "sand," gray, soft .....		5	994
Limestone "sand," hard, dark .....		5	999
Limestone "sand," gray, soft .....		5	1,004
Limestone "sand," hard, dark .....		43	1,047
Silurian System.			
Limestone "sand," light, soft .....		12½	1,059½
Shale, hard, blue, soft .....		8	1,067½
Total depth .....			1,067½

**Log No. 632**

Flahaven, No. 107. Commenced: Oct. 4, 1919. Completed: Oct. 21, 1919.

Strata.		
Pennsylvanian System.		
	Thickness	Depth
Soil, brown, soft .....	15	15
Shale, hard, blue, soft .....	50	65
Sandstone, white, soft .....	25	90
Mississippian System.		
Limestone (Big Lime), white, hard .....	95	185
Shale, hard, blue .....	447	632
Shale (red rock), hard .....	15	647
Shale, hard, blue .....	20	667
Devonian System.		
Shale, black, soft (Chattanooga) .....	147	814
Shale (fire clay), white, soft .....	15	829
Limestone (cap rock), hard, black .....	5	834
Limestone "sand," gray, dark, hard, soft ....	40	874
Limestone, gray, soft .....	15	889
Silurian System.		
Limestone "sand," gray, soft, (pay) .....	12	901
Limestone light, soft .....	6	907
Limestone, dark, soft .....	5	912
Shale, hard, blue, soft .....	6	918
Shale, hard, blue, soft .....	7½	925½
Total depth .....		925½

**Log No. 633**

Flahaven, No. 108. Commenced: Oct. 7, 1919. Completed: Nov. 22, 1919.

Strata.		
Pennsylvanian System.		
	Thickness	Depth
Soil .....	20	20
Sandstone, light, soft .....	25	45
Shale, hard, blue, soft .....	180	225
Mississippian System.		
Limestone (Big Lime), white, hard .....	95	320
Shale, hard, blue, soft .....	465	785
Shale (red rock), soft .....	10	795
Shale, hard, blue, soft .....	20	815

Devonian System	Thickness	Depth
Shale black, soft (Chattanooga) .....	138	953
Shale (fire clay), white, soft .....	20	973
Limestone (cap rock), hard, black .....	4	977
Limestone "sand," gray, soft .....	8	985
Limestone "sand," hard, dark .....	15	1,000
Limestone "sand," light, hard .....	35	1,035
Silurian System.		
Limestone "sand," brown sugar, medium ..	18	1,053
Shale, blue, soft .....	6	1,059
Shale, hard, red, soft .....	6 $\frac{2}{3}$	1,065 $\frac{2}{3}$
Total depth .....		1,065 $\frac{2}{3}$

## Log No. 634

Flahaven, No. 109. Commenced: Oct: 25, 1919. Completed: Nov. 13, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, brown, soft .....	14	14
Sand, light, soft .....	30	44
Shale, hard, blue, soft .....	156	200
Mississippian System.		
Limestone (Big Lime), hard, white .....	100	300
Shale hard, green, soft .....	75	375
Shale, hard, blue, soft .....	390	765
Shale (red rock), soft .....	20	785
Shale, hard, blue, soft .....	15	800
Devonian System.		
Shale, black, soft (Chattanooga) .....	144	944
Shale (fire clay), white, soft .....	18	962
Limestone (cap rock), hard, black .....	2	964
Limestone "sand," gray, hard .....	8	972
Limestone "sand," dark, hard .....	7	979
Limestone "sand," light, soft .....	19	998
Limestone "sand," hard, dark .....	15	1,013
Silurian System.		
Limestone "sand," light, soft, coarse .....	29	1,042
Shale, hard, blue, soft .....	13 $\frac{1}{2}$	1,055 $\frac{1}{2}$
Total depth .....		1,055 $\frac{1}{2}$

**Log No. 635**

Flahaven Land Co., No. 1, lessor. Ohio Oil Co., lessee (logs 1-80 following). Location: The following records (1-80) are of wells drilled by the Ohio Oil Co. on its 1000 acre lease from the Flahaven Land Co. This tract is a sub-division of the original Flahaven farm of 2,490 acres, and is located about one mile south of Greeley P. O., south of the juncture of Little Sinking and Big Sinking Creeks, Lee Co., Ky. The general location is about 8 miles east of Old Landing. Commenced: Feb. 20, 1918. Completed: Mar. 23, 1918. Production: natural production first 24 hours estimated at 10 bbls. oil. Authority: Ohio Oil Co. for this and immediately following logs (1-80) of the Flahaven Land Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, gray, soft .....	14	14
Shale, hard, brown .....	136	150
Mississippian System.		
Limestone (Big Lime), hard, gray .....	165	315
Shale, hard, brown .....	485	800
Devonian System.		
Shale, brown, hard (Chattanooga) .....	135	935
Shale (fire clay), gray, soft .....	12	947
Limestone (cap rock), hard, black .....	10	957
Limestone "sand," hard, light .....	4	961
Limestone, black, hard .....	16	977
Limestone "sand," hard, light .....	10	987
Limestone "sand," dark gray, hard .....	7	994
Silurian System.		
Limestone "sand," brown, hard .....	22	1,016
Limestone "sand," hard, light, (pay) .....	3	1,019
Shale, hard, green .....	2	1,021
Total depth .....		1,021

**Log No. 636**

Flahaven, No. 3. Commenced: June 14, 1918. Completed: July 18, 1918. Production: commenced producing July 15, 1918; natural production for first and second 24 hours, 30 bbls.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, gray, soft .....	10	10
Sand, hard, gray .....	8	18
Shale, hard, brown .....	92	110
Coal, soft, black .....	3	113

## Mississippian System.

Shale, hard, green .....	12	125
Limestone (Big Lime), hard, gray .....	145	270
Shale, hard, brown .....	480	750

## Devonian System.

Shale, hard, brown (Chattanooga) .....	138	888
Shale (fire clay), gray, soft .....	16	904
Limestone (cap rock), hard, black .....	6	910
Limestone, hard, black .....	11	921
Limestone, hard, gray .....	19	940
Limestone "sand," hard, gray, (oil show) ....	3	943
Limestone, hard, gray .....	10	953

## Silurian System.

Limestone "sand," hard, dark gray, (oil) ....	6	959
Limestone "sand," hard, dark gray .....	6	965
Limestone "sand," light gray, hard .....	4	969
Shale, hard, blue .....	1/2	969 1/2
Total depth .....		969 1/2

## Casing record:

Size	Length
10"	18'
8 1/4"	45'
6 1/4"	275'
2"	960
5/8"	950'

## Log No. 637

Flahaven, No. 4. Commenced: June 8, 1918. Completed: June 25, 1918. Production: commenced producing July 24, 1918; natural production first 24 hours, 30 bbls; natural production after second 24 hours, 15 bbls.; production after first 48 hours, after shot, 100 bbls.

## Strata.

Mississippian System.	Thickness	Depth
Soil, gray, soft .....	5	5
Limestone (Big Lime), hard, gray .....	143	148
Shale, hard, green .....	50	198

Mississippian System.	Thickness	Depth
Shale, hard, brown .....	392	590
Shale (red rock), hard .....	12	602
Devonian System.		
Shale, brown, hard (Chattanooga) .....	140	742
Shale (fire clay), soft, gray .....	15	757
Limestone (cap rock), hard, black .....	3	760
Limestone "sand," hard, brown, (oil) .....	10	770
Limestone, hard, black .....	12	782
Limestone "sand," hard, dark gray .....	8	790
Limestone "sand," hard, brown .....	8	798
Limestone "sand," hard, dark gray .....	7	805
Silurian System.		
Shale, hard, brown .....	4	809
Limestone "sand," hard, dark gray, (some pay) .....	12	821
Shale, hard, blue .....	3	824
Total depth .....		824

### Log No. 638

Flahaven, No. 5. Commenced: Aug. 19, 1918. Completed: Sept. 3, 1918. Production: commenced producing Sept. 4, 1918; natural production for the first 24 hours, 100 bbls.; natural production for the second 24 hours, 60 bbls. Production after shot was 150 bbls. for the first 24 hours, and 100 bbls. for the second 24 hours. The color of the oil was green.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil, gray, soft .....	8	8
Limestone (Big Lime), hard, white .....	122	130
Shale, hard, blue .....	460	590
Shale (red rock), soft .....	12	602
Devonian System.		
Shale, brown, soft (Chattanooga) .....	156	758
Shale (fire clay), white, soft .....	16	774
Limestone (cap rock), hard, black .....	2	776
Limestone "sand," hard, brown .....	10	786
Limestone "sand," hard, dark .....	8	794
Limestone "sand," hard, dark, (oil show) ....	7	801
Limestone "sand," hard, light .....	11	812
Limestone, hard, gray .....	14	826

## Silurian System.

Thickness Depth

Limestone "sand," hard, light .....	14	840
Shale, hard, blue .....	1	841
Total depth .....		841

## Log No. 639

Flahaven, No. 6. Commenced: July 24, 1918. Completed: Aug. 13, 1918. Production: commenced producing Aug. 20, 1918; natural production at end of 48 hours, 40 bbls.; natural production at end of 48 hours after shot, 120 bbls.

## Strata.

## Mississippian System.

Thickness Depth

Soil, soft, gray .....	8	8
Limestone (Big Lime), hard, white .....	140	148
Shale, hard, blue .....	457	605
Shale (red rock), soft .....	12	617
Shale, hard, blue .....	18	635

## Devonian System.

Shale, brown, soft (Chattanooga) .....	147	782
Shale (fire clay), white, soft .....	9	791
Limestone (cap rock), hard, dark .....	7	798
Limestone "sand," hard, brown, (oil) .....	10	808
Limestone, hard, dark .....	10	818
Limestone "sand," hard, light, (oil show) ....	8	826
Limestone "sand," hard, light .....	7	833
Limestone "sand," hard, dark, (no pay) ....	8	841
Total depth .....		841

## Log No. 640

Flahaven, No. 7. Commenced Sept. 6, 1918. Completed: Sept. 23, 1918.

## Strata.

## Mississippian System.

Thickness Depth

Soil, gray, soft .....	8	8
Shale, hard, blue .....	27	35
Limestone (Big Lime), hard, white .....	115	150
Shale, hard, blue .....	470	620
Shale (red rock), soft .....	12	632
Shale, hard, blue .....	28	660



Devonian System.	Thickness	Depth
Shale, brown, soft (Chattanooga) .....	140	800
Shale (fire clay), white, soft .....	12	812
Limestone (cap rock), hard, dark .....	5	817
Limestone "sand," hard, brown, (oil) .....	9	826
Limestone "sand," hard, dark .....	10	836
Limestone "sand," hard, brown, (oil) .....	10	846
Limestone, hard, gray .....	14	860
Silurian System.		
Limestone "sand," hard, light .....	15	875
Shale, hard, blue .....	6	881
Total depth .....		881

**Log No. 641**

Flahaven, No. 8. Commenced: June 30, 1918. Completed: July 28, 1918. Production: commenced producing Aug. 14, 1918; natural production at the end of 48 hours, 37 bbls.; natural production after shot at end of 48 hours, 125 bbls.

## Strata.

Mississippian System.	Thickness	Depth
Soil, brown, soft .....	6	6
Shale, hard, brown .....	39	45
Limestone (Big Lime), hard, gray .....	155	200
Shale, hard, blue .....	450	650
Shale (red rock), hard .....	15	665
Shale, hard, brown (Sunbury) .....	15	680
Devonian System.		
Shale, brown, hard (Chattanooga) .....	138	818
Shale (fire clay), gray, soft .....	12	830
Limestone (cap rock), hard, black .....	10	840
Limestone "sand," hard, brown, (1st pay) ..	10	850
Limestone, hard, black .....	16	866
Limestone "sand," hard, dark gray, (2nd pay) ..	10	876
Limestone, hard, gray, sandy, (no pay) .....	6	882
Silurian System.		
Limestone "sand," hard, gray, (pay oil same in hole) .....	6	888
Limestone, hard, brown, sandy .....	3	891
Limestone "sand," hard, gray, (little pay) ..	13	904
Shale, hard, blue .....	2	906
Total depth .....		906

**Log No. 642**

Flahaven, No. 9. Commenced: August 26, 1918. Completed: September 14, 1918. Production: Commenced producing September 15, 1918; natural production after first 48 hours, 40 bbls.; natural production 48 hours after shot, 150 bbls.

## Strata.

Mississippian System.	Thickness	Depth
Soil, gray, soft .....	7	7
Shale, hard, blue .....	33	40
Gravel, soft, white .....	5	45
Limestone (Big Lime), hard, white .....	155	200
Shale, hard, blue .....	468	668
Shale (red rock), soft .....	12	680
Shale, hard, blue .....	20	700
Devonian System.		
Shale, brown, soft (Chattanooga) .....	143	843
Shale (fire clay), white, soft .....	12	855
Limestone (cap rock), hard, black .....	10	865
Limestone "sand," hard, gray, (oil) .....	10	875
Limestone "sand," hard, dark .....	14	889
Limestone "sand," hard, light .....	6	895
Shale, hard, blue .....	5	900
Silurian System.		
Limestone, hard, dark .....	13	913
Limestone "sand," hard, light .....	12	925
Shale, hard, blue .....	3	928
Total depth .....		928

**Log No. 643**

Flahaven, No. 10. Commenced: October 2, 1918. Completed: November 27, 1918. Production: Commenced producing December 7, 1918; production first 24 hours after shot, 30 bbls.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, soft, gray .....	8	8
Shale, hard, blue .....	82	90
Mississippian System.		
Limestone (Big Lime), hard, white .....	144	234
Shale, hard, blue .....	466	700
Shale (red rock), soft .....	16	716
Shale, hard, blue .....	20	736

Devonian System.	Thickness	Depth
Shale, brown, soft (Chattanooga) .....	134	870
Shale (fire clay), white, soft .....	15	885
Limestone (cap rock), hard, black .....	4	889
Limestone "sand," hard, brown, (oil) .....	10	899
Limestone "sand," hard, dark .....	17	916
Limestone "sand," hard, light .....	8	924
Limestone "sand," hard, light, (oil) .....	6	930

#### Silurian System.

Limestone, hard, gray .....	12	942
Limestone "sand," hard, white .....	8	950
Limestone "sand," fine, hard, white .....	4	954
Total depth .....		954

#### Log No. 644

Flahaven, No. 11. Commenced: December 9, 1918. Completed: January 4, 1919. Production: Commenced producing January 18, 1919; production after first 48 hours after shot, 10 bbls.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil, gray, soft .....	10	10
Shale, hard, blue .....	90	100

#### Mississippian System.

Limestone (Big Lime), hard, white .....	148	248
Shale, hard, blue .....	472	720
Shale (red rock), soft .....	15	735
Shale, hard, blue .....	20	755

#### Devonian System.

Shale, brown, soft (Chattanooga) .....	140	895
Shale (fire clay), white, soft .....	10	905
Limestone (cap rock), hard, black .....	4	909
Limestone "sand," hard, dark, (oil 914) .....	11	920
Limestone "sand," hard, light .....	6	926
Limestone "sand," hard, white .....	14	940
Limestone "sand," fine, hard, dark .....	14	954

#### Silurian System.

Limestone and sand, hard, dark .....	11	965
Limestone "sand," hard, white .....	11	976
Shale, hard, blue .....	5	981
Total depth .....		981

**Log No. 645**

Flahaven, No. 12. Commenced: March 11, 1920. Completed: April 20, 1920. Production: Commenced producing April 23, 1920; production first 48 hours after shot, 2 bbls.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, yellow, soft .....	10	10
Sand, hard, white .....	65	75

## Mississippian System.

Shale, hard, blue .....	25	100
Limestone (Big Lime), hard, white .....	110	210
Shale, green, soft .....	15	225
Shale, hard, blue .....	500	725

## Devonian System.

Shale, brown, soft (Chattanooga) .....	120	845
Shale (fire clay), white, soft .....	20	865
Limestone (cap rock), hard, black .....	5	870
Limestone "sand," hard, brown .....	3	873
Limestone, hard, dark .....	13	886
Limestone "sand," light, hard .....	3	889
Limestone "sand," hard, gray .....	7	896
Limestone, hard, dark .....	6	902
Limestone "sand," hard, brown .....	9	911
Total depth .....		911

**Log No. 646**

Flahaven, No. 13. Commenced: January 1, 1920. Completed: January 27, 1920. Production: Commenced producing February 2, 1920; production 48 hours after shot, 29 bbls.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, black, soft .....	10	10
Sand, white .....	30	40
Shale, hard .....	70	110

## Mississippian System.

Limestone (Big Lime), hard .....	140	250
Shale, hard, soft .....	496	746

Devonian System.	Thickness	Depth
Shale, brown, soft (Chattanooga) .....	139	885
Shale (fire clay), white, soft .....	18	903
Limestone (cap rock), hard, black .....	2	905
Limestone "sand," brown, soft, (oil) .....	14	919
Total depth .....		919

**Log No. 647**

Flahaven, No. 14. Commenced: August 25, 1918. Completed: September 15, 1918. Production: Commenced producing September 16, 1918; production after the first 24 hours after shot, 150 bbls.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sand, hard, brown .....	15	15
Shale, black, soft .....	15	30
Mississippian System.		
Limestone, white, soft, (Big Lime) .....	35	65
Limestone, white, hard (Big Lime) .....	70	135
Shale, green, soft .....	30	165
Limestone, hard, white .....	25	190
Unnamed substance .....	18	208
Shale, white, soft .....	392	600
Shale (red rock), soft .....	25	625
Shale, gray .....	5	630
Devonian System.		
Shale, brown, soft (Chattanooga) .....	145	775
Shale (fire clay), soft .....	10	785
Limestone (cap rock), black .....	5	790
Limestone "sand," gray, (filled up with oil 125 feet) .....	5	795
Limestone "sand," (oil) .....	7	802
Limestone "sand," gray .....	5	807
Limestone "sand," hard, dark .....	3	810
Limestone, dark .....	4	814
Limestone, light gray .....	5	819
Limestone, dark .....	2	821
Limestone, light gray .....	6	827
Limestone .....	10	837
Silurian System.		
Limestone, (oil) .....	8	845
Limestone "sand," light .....	5	850
Shale, hard .....	2	852
Total depth .....		852

**Log No. 648**

Flahaven, No. 15. Commenced: July 25, 1918. Completed: August 9, 1918. Production: Commenced producing August 13, 1918; production after first 48 hours after shot, 5 bbls.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, pink, soft .....	10	10
Sand, hard, gray .....	6	16
Shale, hard, black .....	10	26
Sand, hard, gray .....	74	100
Shale, hard, gray, soft .....	35	135
Mississippian System.		
Limestone (Big Lime), hard, gray .....	120	255
Shale, hard, green, soft .....	10	265
Shale, hard, gray .....	480	745
Devonian System.		
Shale, brown, hard (Chattanooga) .....	141	886
Shale (fire clay), gray, soft .....	15	901
Limestone (cap rock), hard, black .....	5	906
Limestone "sand," brown, hard, (oil) .....	5	911
Limestone, hard, black .....	4	915
Limestone "sand," hard, black, (no pay) .....	2	917
Limestone, hard, gray .....	5	922
Limestone "sand," hard, gray, (no pay) .....	9	931
Limestone "sand," hard, gray, (best oil) .....	11	942
Limestone, hard, gray .....	6	948
Limestone, hard, brown .....	6	954
Silurian System.		
Limestone "sand," hard, light, (no water) ....	6	960
Limestone "sand," hard, brown, (no pay) ....	3	963
Shale, hard, blue .....	2	965
Total depth .....		965

**Log No. 649**

Flahaven, No. 16. Commenced: September 26, 1918. Completed: October 17, 1918. Production: Commenced producing October 19, 1918; natural production after first 48 hours, 75 bbls. oil; production after 48 hours after shot, 100 bbls.

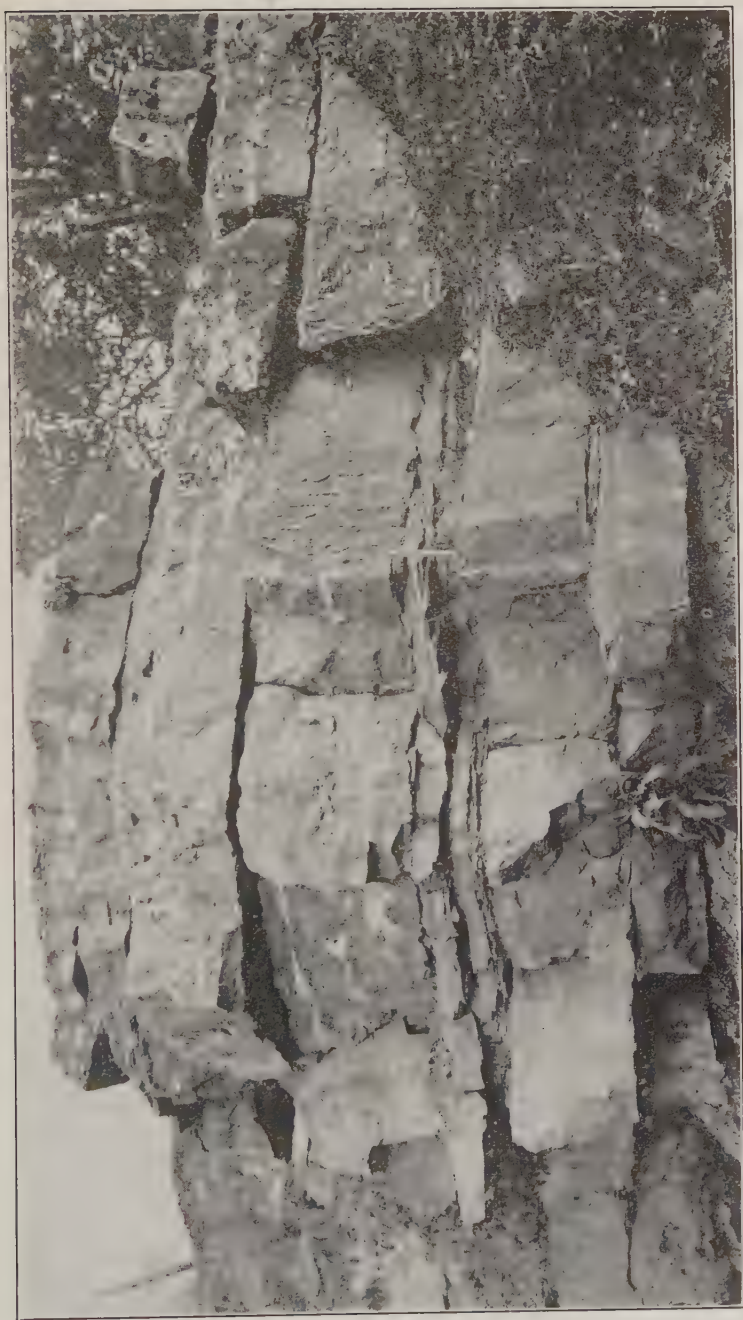
Strata.		
Pennsylvanian System.		Thickness Depth
Shale, hard .....	12	12
Sand .....	18.	30
Mississippian System.		
Shale .....	15	45
Limestone (Big Lime) .....	125	170
Shale, hard .....	25	195
Limestone .....	25	220
Shale .....	410	630
Shale (red rock) .....	15	645
Shale, hard .....	20	665
Devonian System.		
Shale, brown (Chattanooga) .....	135	800
Fire clay .....	17	817
Limestone (cap rock) .....	5	822
Limestone "sand," (first pay) .....	10	832
Limestone "sand," dark .....	4	836
Limestone, sandy .....	9	845
Limestone .....	6	851
Shale, hard .....	5	856
Limestone .....	8	864
Limestone "sand" .....	16	880
Total depth .....		880

**Log No. 650**

Flahaven, No. 17. Commenced: November 6, 1918. Completed: November 30, 1918. Production: 24 hours after shot, 80 bbls.

Strata.		
Mississippian System.		Thickness Depth
Soil, gray, soft .....	10	10
Limestone (Big Lime), hard, white .....	90	100
Shale, hard, blue, soft .....	485	585
Shale (red rock), soft .....	5	590
Shale, hard, blue, soft .....	10	600
Devonian System.		
Shale, brown, soft (Chattanooga) .....	140	740
Shale (fire clay), white, soft .....	14	754
Limestone (cap rock), hard, black .....	4	758
Limestone "sand," hard, dark .....	2	760





THE CORNIFEROUS "SAND."

An exposure of the Onondage Limestone (Corniferous "sand") on the L. & N. R. R., northwest of Irvine, Estill County, Kentucky. Note the hammer on the second ledge for size.



Devonian System.	Thickness	Depth
Limestone "sand," hard, brown (oil) .....	10	770
Limestone "sand," hard, dark .....	20	790
Limestone "sand," hard, brown, (oil) .....	6	796
Limestone, hard, gray .....	4	800
Silurian System.		
Limestone "sand," hard, brown, (oil) .....	8	808
Limestone "sand," hard, white .....	4	812
Limestone "sand," hard, dark .....	12	824
Shale, hard, blue, soft .....	5	829
Total depth .....		829

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**Log No. 651**

Flahaven, No. 18. Commenced: November 1, 1918. Completed: November 14, 1918. Production: Commenced producing November 15, 1918; natural production after first 48 hours, 75 bbls.; production after first 24 hours after shot, 180 bbls. oil.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Soil, gray, soft .....	12	12
Sand, brown, hard .....	23	35
Shale, hard, brown .....	15	50
Mississippian System.		
Limestone (Big Lime), hard, gray .....	140	190
Shale, hard .....	20	210
Shale, soft, (soapstone) .....	430	640
Shale (red rock) .....	12	652
Shale, hard .....	10	662
Devonian System.		
Shale, black (Chattanooga) .....	148	810
Shale (fire clay) .....	20	830
Limestone (cap rock) .....	5	835
Limestone "sand," gray .....	10	845
Limestone, black .....	5	850
Limestone "sand" .....	40	890
Shale, hard .....	4	894
Total depth .....		894

NOTE—The Devonian-Silurian contact is toward the bottom of the 40 feet of limestone above 890.

**Log No. 652**

Flahaven, No. 19. Commenced: December 5, 1918. Completed: January 4, 1919. Production: commenced producing January 16, 1919; production first 48 hours after shot, 145 bbls. Shot January 6, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, soft, dark .....	28	28
Sandstone, yellow, soft .....	2	30
Shale, soft, blue .....	35	65
Mississippian System.		
Limestone (Big Lime), hard, white .....	135	200
Shale, hard, blue, soft .....	490	690
Shale (red rock), soft .....	12	702
Shale, hard, blue, soft .....	18	720
Devonian System.		
Shale, brown, soft (Chattanooga) .....	119	839
Shale (fire clay), white, soft .....	20	859
Limestone (cap rock), hard, black .....	5	864
Limestone "sand," dark, hard, (oil) .....	10	874
Limestone "sand" and limestone, hard, light ..	20	894
Limestone "sand," hard, white .....	8	902
Limestone, hard, dark .....	4	906
Limestone "sand," hard, white .....	8	914
Silurian System.		
Limestone "sand," hard, brown, (no oil) ....	6	920
Shale, hard, blue, soft .....	3	923
Total depth .....		923

**Log No. 653**

Flahaven, No. 20. Commenced: Feb. 20, 1919. Completed: Mar. 12, 1919. Production: commenced producing Mar. 20, 1919; production first 48 hours after shot, 100 bbls. Shot March 23, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, gray, soft .....	14	14
Sandstone, yellow, soft .....	16	30
Shale, blue, soft .....	60	90

Mississippian System.	Thickness	Depth
Limestone (Big Lime), hard, white .....	120	210
Shale, blue, hard, soft .....	470	680
Shale (red rock), soft .....	10	690

## Devonian System.

Shale, brown, soft (Chattanooga) .....	150	840
Shale (fire clay), white, soft .....	20	860
Limestone (cap rock), hard, black .....	4	864
Limestone "sand," hard, white .....	20	884
Limestone "sand," brown, hard .....	20	904
Total depth .....		904

## Log No. 654

Flahaven, No. 21. Commenced: Dec. 23, 1918. Completed: Jan. 21, 1919. Production: commenced producing Jan. 25, 1919; production after first 48 hours after shot, 20 bbls. Shot Jan. 24, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sand, white .....	20	20
Shale, gray .....	40	60
Shale, gray .....	40	100
Shale .....	100	200

## Mississippian System.

Limestone (Big Lime) .....	150	350
Shale, gray .....	25	375
Limestone .....	25	400
Shale, soft .....	400	800
Shale (red rock) .....	15	815

## Devonian System.

Shale, brown (Chattanooga) .....	171	986
Shale (fire clay) .....	15	1,001
Limestone "sand," (pay) .....	13	1,014
Limestone, black .....	6	1,020
Limestone, dark .....	38	1,058
Total depth .....		1,058

**Log No. 655**

Flahaven, No. 22. Commenced: Feb. 5, 1919. Completed: Feb. 20, 1919. Production: second 24 hours after shot, 75 bbls. Shot Feb. 4, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sand, brown, soft .....	50	50
Shale, hard, black .....	200	250
Mississippian System.		
Limestone (Big Lime), hard, white .....	150	400
Shale, soft, white (soapstone) .....	440	840
Shale (red rock), soft .....	15	855
Shale, hard, white .....	15	870
Devonian System.		
Shale, brown, soft (Chattanooga) .....	140	1,010
Shale (fire clay), white .....	20	1,030
Shale, hard, black .....	4	1,034
Limestone (cap rock) .....	5	1,039
Limestone "sand," (oil) .....	5	1,044
Shell .....	2	1,046
Limestone "sand," (oil) .....	6	1,052
Limestone "sand," dark gray .....	2	1,054
Limestone "sand," gray .....	4	1,058
Limestone "sand," limy .....	22	1,080
Total depth .....		1,080

**Log No. 656**

Flahaven, No. 23. Commenced: Feb. 7, 1919. Completed: Mar. 17, 1919. Production: commenced producing Mar. 22, 1919; production after 48 hours after shot, 75 bbls. Shot Mar. 18, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, soft, dry .....	20	20
Sandstone, soft, yellow .....	25	45
Shale, soft, blue .....	40	85
Shale, hard, blue, soft .....	120	205
Mississippian System.		
Limestone (Big Lime), hard, white .....	140	345
Shale, hard, blue, soft .....	500	845

Devonian System.	Thickness	Depth
Shale, brown, soft (Chattanooga) .....	130	975
Shale (fire clay), white, soft .....	14	989
Limestone (cap rock), hard, black .....	3	992
Limestone "sand," hard, brown .....	9	1,001
Limestone "sand," hard, dark .....	20	1,021
Limestone "sand," white, hard .....	7	1,028
Limestone "sand" and lime, hard, dark ....	3	1,031
Total depth .....		1,031

**Log No. 657**

Flahaven, No. 24. Commenced: Mar. 26, 1919. Completed: Apr. 9, 1919. Production: commenced producing April 14, 1919; production after 48 hours after shot, 100 bbls. Shot April 11, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sand, white, soft .....	30	30
Shale .....	175	205

## Mississippian System.

Limestone (Big Lime) .....	135	340
Shale, green .....	17	357
Shale, soft, sandy .....	501	858

## Devonian System.

Shale, brown (Chattanooga) .....	137	995
Limestone (cap rock) .....	8	1,003
Limestone "sand," (oil) .....	15	1,018
Limestone, black .....	2	1,020
Limestone "sand," white .....	17	1,037
Total depth .....		1,037

**Log No. 658**

Flahaven, No. 25. Commenced: May 30, 1919. Completed: June 14, 1919. Production: commenced producing June 17, 1919; production 48 hours after shot, 50 bbls. Shot June 16, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, red, soft .....	15	15
Shale, black, soft .....	170	185

Mississippian System.		Thickness	Depth
Limestone (Big Lime), hard, white .....	160	345	
Shale, soft, white .....	480	825	
Shale (red rock), soft .....	5	830	
Devonian System.			
Shale, brown, soft (Chattanooga) .....	140	970	
Shale (fire clay), gray, soft .....	22	992	
Limestone (cap rock), hard, black .....	3	995	
Limestone "sand," light brown, hard .....	12	1,007	
Limestone, hard, black .....	4	1,011	
Limestone "sand," hard, gray .....	14	1,025	
Total depth .....		1,025	

**Log No. 659**

Flahaven, No. 26. Commenced: April 29, 1919. Completed: May 12, 1919. Production: commenced producing May 15, 1919; production 48 hours after shot, 150 bbls. Shot May 13, 1919.

## Strata.

Pennsylvanian System.		Thickness	Depth
Sand .....	12	12	
Shale, soft .....	193	205	
Mississippian System.			
Limestone (Big Lime), hard .....	135	340	
Shale, soft .....	502	842	
Devonian System.			
Shale, brown, soft (Chattanooga) .....	135	977	
Shale (fire clay), soft .....	15	992	
Limestone (cap rock), hard .....	2	994	
Limestone "sand," (oil) .....	14	1,008*	
Limestone, dark .....	4	1,012	
Limestone, gray .....	15	1,027	
Limestone "sand," light .....	2	1,029	
Total depth .....		1,029	

**Log No. 660**

Flahaven, No. 27. Commenced: Dec. 20, 1918. Completed: Mar. 3, 1919. Production: commenced producing Mar. 17, 1919; production 48 hours after shot, 5 bbls. Shot March 11, 1919.

## Strata.

Mississippian System.		Thickness	Depth
Soil, gray, soft .....	1	1	
Limestone (Big Lime), hard, white .....	85	86	
Shale hard, blue, soft .....	514	600	

Devonian System.	Thickness	Depth
Shale, brown, soft (Chattanooga) .....	136	736
Shale (fire clay), white, soft .....	16	752
Limestone (cap rock), hard, dark .....	2	754
Limestone "sand," hard, dark .....	20	774
Limestone "sand," hard, white .....	41	815
Total depth .....		815

NOTE—The Devonian-Silurian contact is toward the base of the last 41 feet.

### Log No. 661

Flahaven, No. 28. Commenced: Jan. 10, 1919. Completed: Jan. 28, 1919. Production: commenced producing Jan. 31, 1919; production 48 hours after shot, 125 bbls. Shot Jan. 29, 1919.

#### Strata.

Mississippian System.	Thickness	Depth
Soil, gray, soft .....	15	15
Limestone (Big Lime), hard, white .....	105	120
Shale, hard, blue, soft .....	500	620
Devonian System.		
Shale, brown, soft (Chattanooga) .....	130	750
Shale (fire clay), blue, soft .....	12	762
Limestone (cap rock), hard, black .....	2	764
Limestone "sand," hard, brown, (oil) .....	10	774
Limestone "sand," hard, dark, fine .....	31	805
Limestone "sand," hard, light, (oil show) ..	5	810
Limestone "sand," hard, dark .....	5	815
Silurian System.		
Limestone "sand," hard, brown, (oil show) ..	5	820
Shale, hard, blue, soft .....	4	824
Total depth .....		824

### Log No. 662

Flahaven, No. 29. Commenced: Feb. 8, 1919. Completed: Mar. 5, 1919. Production: commenced producing Mar. 18, 1919; production 48 hours after shot, 115 bbls. Shot Mar. 11, 1919.

#### Strata.

Mississippian System.	Thickness	Depth
Soil, gray, soft .....	20	20
Limestone (Big Lime), hard, white .....	100	120
Shale, hard, blue, soft .....	490	610

Devonian System.	Thickness	Depth
Shale, brown, soft (Chattanooga) .....	144	754
Shale (fire clay), white, soft .....	16	770
Limestone (cap rock), hard, dark .....	4	774
Limestone "sand," hard, dark, (oil) .....	12	786
Limestone "sand," hard, dark .....	47	833
Shale, hard, blue, soft .....	2	835
Total depth .....		835

NOTE—The Devonian-Silurian contact is toward the base of the 47 feet of limestone above 833 feet in depth.

### Log No. 663

Flahaven, No. 31. Commenced: Mar. 25, 1919. Completed: Apr. 7, 1919. Production: commenced producing Apr. 7, 1919; production 48 hours after shot, 144 bbls. Shot Apr. 8, 1919.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil, gray, soft .....	15	15
Shale, hard, blue, soft .....	128	143
Mississippian System.		
Limestone (Big Lime), hard, white .....	126	269
Shale, hard, blue, soft .....	486	755
Shale (red rock), soft .....	10	765
Shale, hard, blue, soft .....	10	775
Devonian System.		
Shale, brown, soft (Chattanooga) .....	130	905
Shale (fire clay), white, soft .....	15	920
Limestone (cap rock), hard, dark .....	2	922
Limestone "sand," brown, hard, (oil) .....	15	937
Limestone "sand," hard, dark, (dry) .....	3	940
Limestone "sand," brown, hard, (oil) .....	5	945
Limestone "sand," and lime, hard, dark ....	12	957
Total depth .....		957

### Log No. 664

Flahaven, No. 32. Commenced: April 7, 1919. Completed: April 29, 1919. Production: commenced producing May 4, 1919; production 48 hours after shot, 80 bbls. Shot April 28, 1919.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil, gray, soft .....	20	20
Shale, hard, blue, soft .....	110	130



	Thickness	Depth
Mississippian System.		
Limestone (Big Lime), hard, white .....	120	250
Shale, hard, blue, soft .....	470	720
Shale (red rock), soft .....	10	730
Shale, hard, blue, soft .....	25	755
Devonian System.		
Shale, brown, soft (Chattanooga) .....	135	890
Shale (fire clay), white, soft .....	16	906
Limestone (cap rock), hard, black .....	4	910
Limestone "sand," hard, brown, (oil) .....	14	924
Limestone "sand," hard, dark, (no oil) .....	18	942
Total depth .....		942

**Log No. 665**

Flahaven, No. 33. Commenced: April 23, 1919. Completed May 12, 1919. Production: commenced producing May 16, 1919; production after 48 hours after shot, 100 bbls. Shot May 13, 1919.

## Strata.

	Thickness	Depth
Pennsylvanian System.		
Soil, gray, soft .....	25	25
Shale, hard, blue, soft .....	75	100
Sandstone, red, soft .....	20	120
Mississippian System.		
Shale, hard, blue, soft .....	20	140
Limestone (Big Lime), hard, white .....	120	260
Shale, hard, blue, soft .....	470	730
Shale (red rock), soft .....	12	742
Shale, hard, blue, soft .....	27	769
Devonian System.		
Shale, brown, soft (Chattanooga) .....	131	900
Shale (fire clay), white, soft .....	16	916
Limestone (cap rock), hard, dark .....	3	919
Limestone "sand," brown, hard, (oil) .....	13	932
Limestone "sand," hard, dark, (no oil) .....	25½	957½
Total depth .....		957½

**Log No. 656**

Flahaven, No. 34. Commenced: April 23, 1919. Completed: May 7, 1919. Production: commenced producing May 10, 1919; production 48 hours after shot, 140 bbls. Shot May 8, 1919.

## Strata.

	Thickness	Depth
Pennsylvanian System.		
Soil, gray, soft .....	1	1
Sandstone, yellow, soft .....	49	50
Shale, hard, blue, soft .....	135	185

Mississippian System.		Thickness	Depth
Limestone (Big Lime), hard, gray	.....	145	330
Shale, hard, blue, soft	.....	470	800
Shale (red rock) soft,	.....	10	810
Shale, hard, blue, soft	.....	10	820
Devonian System.			
Shale, brown, soft (Chattanooga)	.....	140	960
Shale (fire clay), white, soft	.....	13	973
Limestone (cap rock), hard, dark	.....	4	977
Limestone "sand," brown, hard, (oil)	.....	11	988
Limestone "sand," hard, dark, (no oil)	.....	12	1,000
Limestone "sand," hard, gray, (oil)	.....	7	1,007
Limestone "sand," hard, white, (no oil)	....	4	1,011
Total depth	.....		1,011

**Log No. 667**

Flahaven, No. 35. Commenced: May 10, 1919. Completed: May 27, 1919. Production: commenced producing June 4, 1919; production 48 hours after shot, 75 bbls. Shot May 28, 1919.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil, gray, soft	.....	12	12
Shale, hard, blue, soft	.....	173	185
Mississippian System.			
Limestone (Big Lime), hard, white	.....	135	320
Shale, hard, blue, soft	.....	465	785
Shale (red rock), soft	.....	15	800
Shale, hard, blue, soft	.....	15	815
Devonian System.			
Shale, brown, soft (Chattanooga)	.....	150	965
Shale (fire clay), white, soft	.....	15	980
Limestone (cap rock), hard, dark	.....	3	983
Limestone "sand," brown, hard, (oil)	.....	17	1,000
Limestone "sand," hard, dark, (no oil)	.....	18	1,018
Total depth	.....		1,018

**Log No. 668**

Flahaven, No. 36. Commenced: April 18, 1919. Completed: May 6, 1919. Production: commenced producing May 9, 1919; production 48 hours after shot, 155 bbls. Shot May 7, 1919.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil, gray, soft	.....	20	20
Shale, hard, blue, soft	.....	140	160

Mississippian System.	Thickness	Depth
Limestone (Big Lime), gray, hard .....	120	280
Shale, hard, blue, soft .....	476	756
Shale (red rock), soft .....	14	770
Shale, hard, blue, soft .....	10	780
Devonian System.		
Shale, brown, soft (Chattanooga) .....	140	920
Shale (fire clay), white, soft .....	15	935
Limestone (cap rock), hard dark .....	4	939
Limestone "sand," brown, hard, (oil) .....	15	954
Limestone "sand," gray, hard, (dry) .....	12	966
Total depth .....		966

**Log No. 669**

Flahaven, No. 38. Commenced: May 15, 1919. Completed: June 4, 1919. Production: commenced producing June 11, 1919; production 48 hours after shot, 50 bbls. Shot June 4, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, gray, soft .....	16	16
Shale, hard, blue, soft .....	64	80
Mississippian System.		
Limestone (Big Lime), white, hard .....	140	220
Shale, hard, blue, soft .....	450	670
Shale (red rock), soft .....	10	680
Shale, hard, blue, soft .....	15	695
Devonian System.		
Shale, brown, soft (Chattanooga) .....	137	832
Shale (fire clay), white, soft .....	12	844
Limestone (cap rock), hard, dark .....	3	847
Limestone "sand," brown, hard, (oil) .....	14	861
Limestone "sand," light, hard, (no oil) .....	8	869
Limestone and sand, hard, dark, (no oil) ....	12½	881½
Total depth .....		881½

**Log No. 670**

Flahaven, No. 39. Commenced: June 9, 1919. Completed: June 27, 1919. Production: commenced producing July 1, 1919; production 48 hours after shot, 10 bbls. Shot June 27, 1919.

## Strata.

Pennsylvanian System.	Thickness	Depth
Shale, hard, white, soft .....	20	20
Sand, hard .....	40	60
Shale, hard, blue, soft .....	120	180

Mississippian System.		Thickness	Depth
Limestone (Big Lime), hard, white .....	150	330	
Shale, hard, green, soft .....	20	350	
Shells, gritty, white .....	20	370	
Shale, hard, dark, soft .....	448	818	
Devonian System.			
Shale, brown (Chattanooga) .....	140	958	
Shale (fire clay), white .....	20	978	
Shale (red rock) .....	2	980	
Limestone (cap rock), hard, dark .....	3	983	
Limestone "sand," soft .....	31	1,014	
Total depth .....		1,014	

**Log No. 671**

Flahaven, No. 40. Commenced: May 30, 1919. Completed: June 6, 1919. Production: commenced producing July 12, 1919; production after 48 hours after shot, 1 bbl. Shot June 17, 1919.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil, gray, soft .....	20	20	
Shale, hard, blue, soft .....	80	100	
Sandstone, gray, soft .....	32	132	
Mississippian System.			
Limestone (Big Lime), hard, white .....	138	270	
Shale, hard, blue, soft .....	505	775	
Shale (red rock), soft .....	5	780	
Shale, hard, blue, soft .....	5	785	
Devonian System.			
Shale, brown, soft (Chattanooga) .....	125	910	
Shale (fire clay), white, soft .....	12	922	
Limestone (cap rock), hard, dark .....	3	925	
Limestone "sand," brown, hard .....	12	937	
Limestone "sand," white, hard, (no oil) ....	16	953	
Total depth .....		953	

**Log No. 672**

Flahaven, No. 41. Commenced: May 26, 1919. Completed: June 7, 1919. Production: commenced producing June 14, 1919; production after 48 hours after shot, 50 bbls. Shot June 9, 1919.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil, gray, soft .....	12	12	
Shale, hard, blue, soft .....	13	25	
Sandstone, gray, soft .....	75	100	
Shale, hard, blue, soft .....	115	215	

	Thickness	Depth
Mississippian System.		
Limestone (Big Lime), hard, white .....	135	350
Shale, hard, blue, soft .....	500	850
Devonian System.		
Shale, brown, soft (Chattanooga) .....	130	980
Shale (fire clay), white, soft .....	13	993
Limestone (cap rock), hard, dark .....	2	995
Limestone "sand," brown, hard, (oil) .....	12	1,007
Limestone, hard, dark .....	4	1,011
Limestone "sand," hard and dark, (oil) ....	7	1,018
Limestone "sand," light, hard, (no oil) ....	14	1,032
Total depth .....		1,032

**Log No. 673**

Flahaven, No. 42. Commenced: June 27, 1919. Completed: July 21, 1919. Production: commenced producing July 28, 1919; production 48 hours after shot, 135 bbls. Shot July 22, 1919.

## Strata.

	Thickness	Depth
Pennsylvanian System.		
Sand, red, medium .....	40	40
Shale, dark, soft .....	20	60
Mississippian System.		
Limestone, hard, white .....	20	80
Shale, white, soft .....	20	100
Limestone (Big Lime), hard, white .....	105	205
Shale, soft, green .....	20	225
Shale, white, medium .....	476	701
Devonian System.		
Shale, brown, soft (Chattanooga) .....	130	831
Shale, white, soft .....	20	851
Limestone "sand," dark, soft .....	10	861
Total depth .....		861

**Log No. 674**

Flahaven, No. 43. Commenced: May 21, 1919. Completed: June 12, 1919.

## Strata.

	Thickness	Depth
Pennsylvanian System.		
Soil, gray, soft .....	20	20
Shale, hard, blue, soft .....	110	130
Sandstone, gray, soft .....	30	160

Mississippian System.		Thickness	Depth
Shale, hard, blue .....		20	180
Limestone (Big Lime), white, hard .....		120	300
Shale, hard, blue, soft .....		480	780
Shale (red rock), soft .....		10	790
Devonian System.			
Shale, brown, soft (Chattanooga) .....		150	940
Shale (fire clay), white, soft .....		25	965
Limestone (cap rock), hard, dark .....		2	967
Limestone "sand," hard, dark, (oil) .....		15	982
Limestone "sand," hard, dark, (dry) .....		4	986
Limestone "sand," hard, white, (dry) .....		8	994
Total depth .....			994

**Log No. 675**

Flahaven, No. 44. Commenced: June 16, 1919. Completed: July 8, 1919. Production: commenced producing July 12, 1919; production 48 hours after shot, 15 bbls. Shot July 9, 1919.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil, gray, soft .....		20	20
Shale, hard, blue, soft .....		145	165
Sandstone, gray, soft .....		15	180
Mississippian System.			
Limestone (Big Lime), hard, white .....		140	320
Shale, hard, blue, soft .....		430	750
Shale (red rock), soft .....		15	765
Shale, hard, blue, soft .....		55	820
Devonian System.			
Shale, brown, soft (Chattanooga) .....		130	950
Shale (fire clay), white, soft .....		18	968
Limestone (cap rock), hard, dark .....		4	972
Limestone "sand," brown, hard .....		12	984
Limestone "sand," hard, dark, (no oil) .....		3	987
Total depth .....			987

**Log No. 676**

Flahaven, No. 47. Commenced: July 5, 1919. Completed: July 16, 1919. Production: commenced producing July 19, 1919; production 48 hours after shot, 10 bbls. Shot July 17, 1919, between 899 and 909 feet.

## Strata.

Pennsylvanian System.		Thickness	Depth
Shale, black, soft .....		100	100

Mississippian System.		Thickness	Depth
Limestone (Big Lime), hard, white .....		140	240
Shale, soft, white .....		490	730
Devonian System.			
Shale, brown, soft (Chattanooga) .....		160	890
Shale (fire clay), gray, soft .....		6	896
Limestone (cap rock), hard, black .....		2	898
Limestone "sand," brown, hard .....		11	909
Total depth .....			909

**Log No. 677**

Flahaven, No. 48. Commenced: July 14, 1919. Completed: Sept. 19, 1919. Production: commenced producing Sept. 20, 1919; production 48 hours after shot, 6 bbls. Shot Sept. 18, 1919, between 958 and 968 feet.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil, black, soft .....		30	30
Sand, white, soft .....		100	130
Mississippian System.			
Shale, hard, white .....		50	180
Limestone (Big Lime), hard, white .....		110	290
Shale, hard, white, soft .....		510	800
Devonian System.			
Shale, brown, soft (Chattanooga) .....		135	935
Shale (fire clay), white, soft .....		21	956
Limestone (cap rock), hard, black .....		2	958
Limestone "sand," gray, soft, (oil) .....		10	968
Total depth .....			968

**Log No. 678**

Flahaven, No. 49. Commenced: Aug. 11, 1919. Completed: Aug. 19, 1919. Production: commenced producing Aug. 27, 1919; production 48 hours after shot, 4 bbls. Shot Aug. 20, 1919, between 1012 and 1026 feet.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil, black, soft .....		12	12
Sand, brown, soft .....		78	90
Shale, brown, soft .....		109	199

## Mississippian System.

	Thickness	Depth
Limestone (Big Lime), hard, white .....	161	360
Shale, white, soft .....	480	840
Shale (red rock), soft .....	5	845
Shale, white, soft .....	15	860
Shale, brown, soft (Chattanooga) .....	132	992
Shale (fire clay), white, soft .....	15	1,007
Limestone (cap rock), hard, dark .....	5	1,012
Limestone "sand," dark, soft, (pay) .....	14	1,026
Total depth . . . . .		1,026

## Log No. 679

Flahaven, No. 51. Commenced: July 29, 1919. Completed: Aug. 20, 1919. Production: commenced producing Aug. 26, 1919; production 48 hours after shot, 4 bbls. Shot Aug. 21, 1919, between 944 and 959 feet.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Sandstone (mountain), white, soft .....	145	145

## Mississippian System.

Limestone (Big Lime), hard, white .....	125	270
Shale, hard, white, soft .....	511	781

## Devonian System.

Shale, brown, soft (Chattanooga) .....	140	921
Shale (fire clay), white, soft .....	20	941
Limestone (cap rock), hard, black .....	3	944
Limestone "sand," brown, soft, (oil) .....	15	959
Total depth .....		959

## Log No. 680

Flahaven, No. 52. Commenced: July 5, 1919. Completed: Aug. 12, 1919. Production: commenced producing Aug. 18, 1919; production 48 hours after shot, 10 bbls. Shot Aug. 15, 1919, between 1003 and 1016 feet.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Sandstone (mountain), white, soft .....	80	80
Shale, hard, white, soft .....	120	200





#### IRREGULAR SEDIMENTATION IN THE POTTSVILLE.

The whimsical play of off shore currents in Pottsville seas or lagoons developed the uneven characteristic of the sandstone ledge shown in detail above. But it did not injure at all its possibilities as an oil "sand." Outcrop one mile south of Sebree, Webster County, Kentucky.

Mississippian System.		Thickness	Depth
Limestone (Big Lime), hard, white .....		142	342
Shale, hard, white, soft .....		502	844
Devonian System.			
Shale, brown, soft (Chattanooga) .....		137	981
Shale (fire clay), white, soft .....		20	1,001
Limestone (cap rock), hard, black .....		2	1,003
Limestone "sand," brown, soft, (oil) .....		13	1,016
Total depth .....			1,016

**Log No. 681**

Flahaven, No. 53. Commenced: Aug. 8, 1919. Completed: Aug. 29, 1919. Production: commenced producing Sept. 5, 1919; production 48 hours after shot, 45 bbls. Shot Aug. 30, 1919, between 748 and 763 feet.

## Strata.

Pennsylvanian System.		Thickness	Depth
Limestone, hard, white .....		20	20
Cavity .....		5	25
Limestone, hard, white .....		5	30
Shale, yellow, soft, muddy, caving .....		5	35
Limestone, hard, white .....		5	40
Quicksand, brown, soft .....		3	43
Limestone (Big Lime), hard, white .....		62	105
Shale, hard, white, soft .....		465	570
Devonian System.			
Shale, brown, soft (Chattanooga) .....		155	725
Shale (fire clay), white, soft .....		21	746
Limestone (cap rock), hard, black .....		2	748
Limestone "sand," brown, soft, (oil) .....		15	763
Total depth .....			763

**Log No. 682**

Flahaven, No. 55. Commenced: July 28, 1919. Completed: Aug. 9, 1919. Production: commenced producing Aug. 17, 1919; production 48 hours after shot, 80 bbls. Shot Aug. 11, 1919, between 926 and 938 feet.

## Strata.

Pennsylvanian System.		Thickness	Depth
Sandstone (mountain), white, soft .....		125	125
Shale, hard, white, soft .....		25	150

		Thickness	Depth
Mississippian System.			
Limestone (Big Lime), hard, white .....	145	295	
Shale, hard, white, soft .....	460	755	
Shale (red rock), soft .....	13	768	
Devonian System.			
Shale, brown, soft (Chattanooga) .....	135	903	
Shale (fire clay), white, soft .....	20	923	
Limestone (cap rock), hard, black .....	3	926	
Limestone "sand," brown, hard, (oil) .....	12	938	
Total depth .....		938	

### Log No. 683

Flahaven, No. 57. Commenced: Aug. 20, 1919. Completed: Aug. 28, 1919. Production: commenced producing Sept. 2, 1919; production 48 hours after shot, 60 bbls. Shot Aug. 30, 1919, between 1018 and 1028 feet.

#### Strata.

		Thickness	Depth
Pennsylvanian System.			
Sandstone, yellow, soft .....	40	40	
Shale, hard, dark, soft .....	110	150	
Shale and shells, light and hard .....	85	235	
Shale (fire clay), white, soft .....	10	245	
Mississippian System.			
Limestone (Big Lime), hard, white .....	135	380	
Shale, hard, green, soft .....	20	400	
Shale, hard, white .....	200	600	
Sand, hard .....	40	640	
Shale, hard, soft .....	220	860	
Shale (red rock) .....	10	870	
Devonian System.			
Shale, brown (Chattanooga) .....	138	1,008	
Shale (fire clay) .....	8	1,016	
Limestone (cap rock), hard, dark .....	2	1,018	
Limestone "sand," light, soft, (oil) .....	10	1,028	
Total depth .....		1,028	

### Log No. 684

Flahaven, No. 58. Commenced: Aug. 22, 1919. Completed: Sept. 3, 1919. Production: commenced producing Sept. 8, 1919, production 48 hours after shot, 30 bbls. Shot Sept. 4, 1919, between 816 and 828 feet.

Strata.		
Mississippian System.		Thickness Depth
Soil, dark, soft .....	40	40
Limestone (Big Lime), hard, white .....	130	170
Shale, hard, white, soft .....	485	655
Devonian System.		
Shale, brown, soft (Chattanooga) .....	139	794
Shale (fire clay), white, soft .....	20	814
Limestone (cap rock), hard, black .....	2	816
Limestone "sand," brown, soft, (oil) .....	12	828
Total depth .....		828

**Log No. 685**

Flahaven, No. 59. Commenced: Sept. 6, 1919. Completed: Sept. 20, 1919. Production: commenced producing Sept. 24, 1919; production 48 hours after shot, 35 bbls. Shot Sept. 22, 1919, between 997 and 1006 feet.

Strata.		
Pennsylvanian System.		Thickness Depth
Soil, black, soft .....	14	14
Sandstone, red, soft .....	181	195
Mississippian System.		
Limestone (Big Lime), hard, white .....	155	350
Shale, soft, white .....	499	849
Shale (red rock), soft .....	5	854
Devonian System.		
Shale, brown, soft (Chattanooga) .....	125	979
Shale (fire clay), white, soft .....	15	994
Limestone (cap rock), hard, black .....	2	996
Limestone "sand," brown, soft .....	10	1,006
Total depth .....		1,006

**Log No. 686**

Flahaven, No. 61. Commenced: Sept. 1, 1919. Completed: Oct. 1, 1919. Production: commenced producing Oct. 12, 1919. Shot Oct. 6, 1919, between 996 and 1004 feet.

Strata.		
Pennsylvanian System.		Thickness Depth
Soil, black, soft .....	40	40
Sand, white, soft .....	80	120
Shale, hard, white, soft .....	60	180

	Thickness	Depth
Mississippian System.		
Limestone (Big Lime), hard, white .....	130	310
Shale, hard, white, soft .....	540	850
Devonian System.		
Shale, brown, soft (Chattanooga) .....	120	970
Shale (fire clay), white soft .....	22	992
Limestone (cap rock), hard, black .....	2	994
Limestone "sand," hard, dark, (oil) .....	8	1,002
Limestone, hard, white .....	30	1,032
Limestone "sand," hard, light .....	5	1,037
Limestone "sand," hard, dark .....	16	1,053
Shale, hard, black, soft .....	6	1,059
Total depth .....		1,059

**Log No. 687**

Flahaven, No. 62. Commenced: Sept. 8, 1919. Completed: Sept. 25, 1919. Production: commenced producing Sept. 30, 1919; production 48 hours after shot, 8 bbls. Shot Sept. 26, 1919, between 975 and 985 feet.

## Strata.

	Thickness	Depth
Pennsylvanian System.		
Soil, black, soft .....	94	94
Sand, white, soft .....	40	134
Shale, hard, white, soft .....	66	200
Mississippian System.		
Limestone (Big Lime), hard, white .....	125	325
Shale, hard, white, soft .....	490	815
Devonian System.		
Shale, brown, soft (Chattanooga) .....	138	953
Shale (fire-clay), white, soft .....	20	973
Limestone (cap rock), hard, black .....	2	975
Limestone "sand," white, soft, (oil) .....	10	985
Total depth .....		985

**Log No. 688**

Flahaven, No. 63. Commenced: Sept. 29, 1919. Completed: Dec. 25, 1919. Production: commenced producing Dec. 25, 1919; production 48 hours after shot, 15 bbls. Shot Dec. 23, 1919, between 992 and 1002 feet.

## Strata.

	Thickness	Depth
Pennsylvanian System.		
Soil, black, soft .....	140	140
Sand, white, soft .....	60	200

Mississippian System.	Thickness	Depth
Limestone (Big Lime), hard, white .....	140	340
Shale, hard, white, soft .....	500	840
Devonian System.		
Shale, brown, soft (Chattanooga) .....	128	968
Shale (fire clay), white, soft .....	20	988
Limestone (cap rock), hard, black .....	2	990
Limestone "sand," brown, soft, (oil) .....	6	996
Limestone, hard, white .....	6	1,002
Total depth .....		1,002

**Log No. 689**

Flahaven, No. 64. Commenced: Sept. 19, 1919. Completed: Sept. 29, 1919. Production: commenced producing Oct. 7, 1919; production 48 hours after shot, 40 bbls. Shot Sept. 30, 1919, between 1012 and 1022 feet.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sandstone, yellow, soft .....	30	30
Shale, hard, dark .....	190	220
Mississippian System.		
Limestone (Big Lime), hard, white .....	130	350
Shells and shale, hard .....	224	574
Shale, hard, dark, soft .....	276	850
Shale (red rock) .....	10	860
Devonian System.		
Shale, brown (Chattanooga) .....	120	980
Shale (fire clay), light .....	28	1,008
Limestone (cap rock), hard, dark .....	2	1,010
Limestone "sand," brown, soft, (oil) .....	12	1,022
Total depth .....		1,022

**Log No. 690**

Flahaven, No. 65. Commenced: Oct. 24, 1919. Completed: Nov. 25, 1919. Production: commenced producing Nov. 30, 1919; production 48 hours after shot, 10 bbls. Shot Nov. 26, 1919, between 902 and 912 feet.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, black, soft .....	100	100
Sand, white, soft .....	15	115

	Thickness	Depth
Mississippian System.		
Limestone (Big Lime), hard, white .....	161	276
Shale, hard, white, soft .....	464	740
Devonian System.		
Shale, brown, soft (Chattanooga) .....	140	880
Shale (fire clay), white, soft .....	20	900
Limestone (cap rock), black, hard .....	2	902
Limestone "sand," brown, soft, (oil) .....	10	912
Total depth .....		912

**Log No. 691**

Flahaven, No. 67. Commenced: Sept. 14, 1919. Completed: Oct. 11, 1919; Production: Commence producing Oct. 17, 1919, production 48 hours after shot, 12 bbls. Shot Oct. 13, 1919,, between 1145 and 1157 feet.

**Strata.**

	Thickness	Depth
Pennsylvanian System.		
Soil, red, soft .....	12	12
Sand, hard, red .....	160	172
Shale, hard, white, soft .....	40	212
Sand, red, soft .....	28	240
Shale, hard, gray, soft .....	130	370
Sand, hard, black .....	30	400
Mississippian System.		
Limestone (Big Lime), hard, white .....	120	520
Shale, hard, green, soft .....	50	570
Limestone, hard, white .....	20	590
Shale, hard, white, soft .....	405	995
Devonian System.		
Shale, brown, soft (Chattanooga) .....	130	1,125
Shale (fire clay), white, soft .....	17	1,142
Limestone (cap rock), hard, black .....	3	1,145
Limestone "sand," brown, hard .....	12	1,157
Total depth .....		1,157

**Log No. 692**

Flahaven, No. 68. Commenced: Sept. 25, 1919. Completed: Oct. 21, 1919.

**Strata.**

	Thickness	Depth
Pennsylvanian System.		
Sand, red, medium .....	205	205
Limestone, hard, white .....	10	215
Shale, dark, medium .....	85	300
Sand, hard, white .....	30	330
Shale, dark, soft .....	30	360



Mississippian System.		Thickness	Depth
Limestone (Big Lime), hard, white .....		125	485
Shale, white, medium .....		504	989
Devonian System.			
Shale, brown, medium (Chattanooga) .....		130	1,119
Shale, white, soft .....		18	1,137
Limestone (cap rock), hard, dark .....		2	1,139
Limestone "sand," hard, gray .....		65	1,204
Shale, dark, soft .....		4	1,208
Total depth .....			1,208

**Log No. 693**

Flahaven, No. 69. Commenced: Oct. 6, 1919. Completed: Nov. 7, 1919. Production: commenced producing Nov. 12, 1919; production 48 hours after shot, 6 bbls. Shot Nov. 8, 1919, between 994 and 1005 feet.

## Strata.

Pennsylvanian System.		Thickness	Depth
Gravel and shale, brown, soft .....		55	55
Shale, hard, dark, soft .....		140	195
Mississippian System.			
Limestone (Big Lime), gray, hard .....		135	330
Shale, gray, soft .....		506	836
Devonian System.			
Shale, brown, soft (Chattanooga) .....		140	976
Shale (fire clay), white, soft .....		15	991
Limestone (cap rock), hard, dark .....		3	994
Limestone "sand," brown, soft, (oil) .....		11	1,005
Total depth .....			1,005

**Log No. 694**

Flahaven, No. 70. Commenced: Oct. 24, 1919. Completed: Nov. 13, 1919. Production: commenced producing Nov. 11, 1919; production 48 hours after shot, 10 bbls. Shot Nov. 15, 1919, between 1003 and 1014 feet.

## Strata.

Pennsylvanian System.		Thickness	Depth
Sand, white, soft .....		14	14
Shale, hard, dark .....		40	54
Sand, hard, dark .....		141	195



		Thickness	Depth
Mississippian System.			
Limestone (Big Lime), hard, white .....		130	325
Shale, hard, and soapstone, white .....		530	855
Shale (red rock), soft .....		10	865
Devonian System.			
Shale, brown, soft (Chattanooga) .....		120	985
Shale (fire clay), white, soft .....		15	1,000
Limestone (cap rock), hard, dark .....		2	1,002
Limestone "sand," brown, soft .....		12	1,014
Total depth .....			1,014

**Log No. 695**

Flahaven, No. 72. Commenced: Oct. 2, 1919. Completed: Oct. 31, 1919. Production: commenced producing Nov. 6, 1919; production 48 hours after shot, 8 bbls. Shot Nov. 1, 1919.

**Strata.**

		Thickness	Depth
Pennsylvanian System.			
Soil, black, soft .....		80	80
Sand, white, soft .....		35	115
Mississippian System.			
Limestone (Big Lime), hard, white .....		130	245
Shale, hard, white, soft .....		472	717
Devonian System.			
Shale, brown, soft (Chattanooga) .....		140	857
Shale (fire clay), white, soft .....		20	877
Limestone (cap rock), hard, black .....		1	878
Limestone "sand," brown, soft, (oil) .....		10	888
Total depth .....			888

**Log No. 696**

Flahaven, No. 75. Commenced: Nov. 21, 1919. Completed: Jan. 1, 1920. Shot Jan. 2, 1920, between 1101 and 1117 feet.

**Strata.**

		Thickness	Depth
Pennsylvanian System.			
Soil, black, soft .....		6	6
Sand, white, soft .....		119	125
Shale, hard, white, soft .....		165	290
Mississippian System.			
Limestone (Big Lime), hard, white .....		130	420
Shale, hard, white, soft .....		490	910

Devonian System.	Thickness	Depth
Shale, brown, soft (Chattanooga) .....	140	1,050
Shale (fire clay), white, soft .....	21	1,071
Limestone (cap rock), hard, black .....	2	1,073
Limestone, hard, black .....	11	1,084
Limestone "sand," hard, white .....	32	1,116
Limestone "sand," white, soft, (oil) .....	11	1,127
Total depth .....		1,127

**Log No. 697**

Flahaven, No. 76. Commenced: Feb. 21, 1920. Completed: April 5, 1920. Production: 48 hours after shot, 3 bbls. Shot April 5, 1920, between 961 and 971 feet.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, soft .....	90	90
Sand, hard, white .....	105	195
Mississippian System.		
Limestone (Big Lime), hard, white .....	105	300
Shale, hard, green, soft .....	20	320
Shale, hard, blue, soft .....	503	823
Devonian System.		
Shale, black, soft (Chattanooga) .....	110	933
Limestone, hard, dark .....	10	943
Shale (fire clay), light, hard .....	14	957
Limestone (cap rock), hard, black .....	2	959
Limestone "sand," hard, light and dark, (oil) .....	12	971
Total depth .....		971

NOTE—The single occurrence of 10 feet of limestone between the "fire clay" shale and the black shale of the Devonian is unusual.

**Log No. 698**

Flahaven, No. 77. Commenced: Nov. 13, 1919. Completed: Dec. 18, 1919. Production: commenced producing Dec. 23, 1919; production 48 hours after shot, 15 bbls. Shot Dec. 20, 1919, between 1119 and 1130 feet.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sand, red, medium .....	195	195
Shale, dark, medium .....	145	340
Mississippian System.		
Limestone (Big Lime), hard, white .....	120	460
Shale, green, soft .....	20	480
Shale, white, medium .....	487	967

Devonian System.	Thickness	Depth
Shale, brown, medium (Chattanooga) .....	130	1,097
Shale, white, soft .....	20	1,117
Limestone (cap rock), hard, dark .....	2	1,119
Limestone "sand," brown, hard, (oil) .....	11	1,130
Total depth .....		1,130

**Log No. 699**

James M. Olinger, No. 3, lessor. Commenced: July 16, 1918.  
 Completed: Aug. 22, 1918. Shot: Aug. 19, 1918. Authority: Ohio  
 Oil Co.

Strata.		
Pennsylvanian System.	Thickness	Depth
Soil, brown, soft .....	30	30
Sand, hard, brown .....	20	50
Shale, hard, and shells, gray .....	269	319
Mississippian System.		
Limestone, hard, white .....	90	409
Shale, hard, and shells, blue .....	425	834
Devonian System.		
Shale, brown (Chattanooga) .....	160	994
Shale, blue, soft .....	15	1,009
Limestone (cap rock) .....	25	1,034
Limestone "sand," brown .....	21	1,055
Total depth .....		1,055

## CHAPTER VII.

### LOGAN COUNTY.

Production: Oil and Gas. Producing Sands: "Shallow" (Mississippian),  
Corniferous (Devonian), Niagaran (Silurian).

#### Log No. 700

M. E. Hall, No. 1, lessor. Authority: The Bertram Developing Co.  
Strata.

Mississippian System.	Thickness	Depth
Soil .....	4	4
Limestone, white .....	396	400
Limestone, chocolate .....	400	800
Limestone, dark .....	241	1,041
Devonian System.		
Shale (Chattanooga) .....	77	1,118
Limestone "sand," (water) .....	20	1,138
Limestone, variable in color .....	123	1,261
Limestone "sand" and shale .....	4	1,265
Limestone, variable in color .....	127	1,392
Total depth .....		1,392

#### Log No. 701

Flowers, No. 1, lessor. Location: 2 miles south of Russellville.  
Completed: Feb. 25, 1921. 1st shot, 40 qts. 1st showing, 565-585.  
6¼ in. casing, 395. Authority: C. A. Phelps, Bowling Green, Ky.

Strata.

Mississippian System.	Thickness	Depth
Limestone, shale, etc. ....	1,031	1,031
Devonian System.		
Shale, black .....	94	1,125
Limestone, white .....	20	1,145
Limestone (cap rock) .....	30	1,175
Total depth .....		1,175

#### Log No. 702

Shaker, No. 1, lessor. Authority: C. A. Phelps, Bowling Green  
Ky.

Strata.

Mississippian System.	Thickness	Depth
Limestones, shales, etc. ....	1,038	1,038
Devonian System.		
Shale, black (Chattanooga) .....	79	1,117

Limestone (cap rock) .....	26	1,143
Limestone "sand," (oil) good showing) .....	15	1,158
Total depth .....		1,158

**Log No. 703**

Nourse, No. 1, lessor. Location: 3 miles east of Russellville. Authority: C. A. Phelps, Bowling Green, Ky.

## Strata.

Mississippian System.	Thickness	Depth
Limestones, shales, etc. ....	1,090	1,090
Devonian System.		
Shale, black (Chattanooga) .....	85	1,175
Limestone, white .....	50	1,225
Limestone, white and blue .....	10	1,235
Limestone, gray .....	34	1,269
Limestone "sand," (pay) .....	5	1,274
Total depth .....		1,274

**Log No. 704**

Johnson, No. 1, lessor. Location: 2½ miles northeast of South Bend. Shot 60 qts., 1,102-1,115. 6½" casing, 429. Shot 60 qts., 1,181-1,200. Authority: C. A. Phelps, Bowling Green, Ky.

## Strata.

Mississippian System.	Thickness	Depth
Limestones, shales, etc. ....	930	930
Devonian System.		
Shale, black .....	72	1,002
Limestone, white .....	30	1,032
Limestone, hard .....	43	1,075
Silurian System.		
Limestone "sand," (white water) .....	10	1,085
Limestone "sand," (gas) .....	3	1,088
Limestone, gray .....	19	1,107
Limestone, gray and brown, (oil show) .....	5	1,112
Limestone, gray .....	33	1,145
Shale (red rock), limy .....	8	1,153
Shale (red rock), limy .....	12	1,165
Limestone, gray, (oil show) .....	17	1,182
Limestone, brownish gray .....	2	1,184
Limestone, brownish gray .....	3	1,187
Limestone, brownish gray .....	20	1,207
Limestone, gray and blue .....	83	1,290
Total depth .....		1,290

**Log No. 705**

Otis Matlock, No. 1, lessor. Location: 3½ miles southwest of Auburn P. O. Commenced: Feb. 5, 1921. Completed: Mar. 24, 1921.

Contractors: Overton & Ward. Drillars: Ward & Jarrett. Shot, 60 qts. Authority: N. Garland, driller.

Strata.

Mississippian System.	Thickness	Depth
Clay .....	10	10
Limestone, gray .....	16	26
Cavity, mud .....	2	28
Limestone, gray .....	112	140
Limestone, brown .....	45	185
Limestone, gray .....	145	330
Limestone, brown .....	270	600
Limestone, black .....	40	640
Limestone, brown, and flint, white .....	65	705
Limestone, black .....	40	745
Mississippian System.		
Limestone, brown, and flint, white .....	45	790
Limestone, black .....	30	820
Limestone, brown .....	45	865
Limestone, blue .....	30	895
Limestone, brown .....	15	910
Shale, green (New Providence) .....	28	938
Devonian System.		
Shale, black (Chattanooga) .....	73	1,011
Limestone (cap rock), white .....	19	1,030
Limestone, brown, and flint, brown .....	25	1,055
Silurian System.		
Limestone, blue .....	5	1,060
Limestone, gray .....	8	1,068
Limestone, grayish brown, and sand .....	6	1,074
Limestone, gray, and sand .....	12	1,086
Limestone, gray .....	4	1,090
Total depth .....		1,090
Fresh water, 27 and 70 feet. Sulphur water, 185 feet. Sulphur gas, 330 feet. Show of oil, 1068-1086, with little gas. 28 feet, 8¼ in. casing; 227 feet, 6¼ in. casing.		
One mile south of this well is the Fisher well, on Curtis Lease.		

## LINCOLN COUNTY.

Production: Oil and Gas. Producing Sands "Shallow Gas Sand" (Mississippian), Corniferous (Devonian), "Second Sand" (Silurian).

### Log No. 706

David G. Elliott, No. 1, lessor. Roeser & Shoenfelt, lessee. Location: near Casey County line, ¼ mile south of Green River. Commenced: Spring, 1920. Contractor: W. H. Mahon.

Strata.		Thickness	Depth
Mississippian System.			
Clay	.....	54	54
Devonian System.			
Shale, black	.....	44	98
Limestone	.....	18	116
Silurian System.			
Shale	.....	49½	166½
Limestone	.....	14½	181
Shale	.....	159	340
Ordovician System.			
Limestone	.....	276	616
Limestone, sandy, brown, soft, Correlatives of Sunnybrook Sand	.....	22	638
Limestone, Correlatives of Sunnybrook Sand...	.....	49	687
Limestone, sandy, brown, soft, Correlatives of Sunnybrook Sand	.....	18	705
Limestone, blue, Correlatives of Sunnybrook Sand	.....	105	810
Limestone, sandy, brown, Correlatives of Sun- nybrook sand	.....	45	855
Incomplete depth	.....		855
Incomplete record, dry to 855; did not need to case.			

**Log No. 707**

J. Hollar, No. 1, lessor. Daniel Boone Oil Co., lessee. Location: Green River District. Commenced: May 7, 1919. Authority: Daniel Boone Oil Co.

Strata.		Thickness	Depth
Mississippian System.			
Gravel	.....	6	6
Shale, sandy, soft	.....	46	52
Devonian System.			
Shale, black( Chattanooga)	.....	47	99
Limestone	.....	2	101
Limestone "sand," (oil show)	.....	20	121
Total depth	.....		121

**Log No. 708**

Sarah Hubble, No. 1, lessor. Daniel Boone Oil Co., lessee. Location: Green River District. Commenced: May 4, 1919. Production: Dry. Authority: Daniel Boone Oil Co.

## Strata.

Mississippian System.	Thickness	Depth
Gravel .....	10	10
Shale, sandy, soft .....	35	45
Devonian System.		
Shale, black, (Chattanooga) .....	30	75
Limestone .....	25	100
Limestone "sand," (dry) .....	18	118
Total depth .....		118

**Log No. 709**

Sanders, No. 1, lessor. Daniel Boone Oil Co., lessee. Location: Hurricane Creek. Drilled in the spring of 1919. Authority: Daniel Boone Oil Co.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	12	12
Sand .....	38	50
Shale, hard .....	25	75
Limestone, sandy .....	15	90
Limestone, sandy .....	10	100
Shale, hard .....	160	260
Devonian System.		
Shale .....	34	294
Shale (fire clay) .....	3	297
Limestone, shelly .....	7	304
Shale (fire clay) .....	2	306
Limestone "sand," (show of oil) .....	46	352
Total depth .....		352

**Log No. 710**

Albert Schuler, No. 1, lessor. Daniel Boone Oil Co., lessee. Location: on Buck Creek. Drilled during 1918. Production: gas from 192 to 200 feet; oil at 185 feet. Authority: Daniel Boone Oil Co.

## Strata.

Mississippian System.	Thickness	Depth
Gravel .....	14	14
Gravel .....	28	42
Shale, sandy .....	18	60
Limestone, sandy .....	15	75
Devonian System.		
Shale, hard .....	30	105



Shale, .....	45	150
Limestone, sandy .....	54	204
Total depth .....		204

NOTE—The Devonian-Silurian contact in this well occurs in the last 54 feet of limestone. The well finished in the Silurian.

#### Log No. 711

Albert Schuler, No. 2, lessor. Daniel Boone Oil Co., lessee. Location: on Buck Creek. Drilled in the spring of 1918. Production: Gas at 190 feet. Authority: Daniel Boone Oil Co.

##### Strata.

Mississippian System.	Thickness	Depth
Shale, hard, white (water at 35) .....	50	50
Shale, hard, blue .....	55	105
Devonian System.		
Shale, black (Chattanooga) .....	52	157
Limestone and "sand" .....	60	217
Shale, hard, white .....	6	223
Limestone .....	27	250
Total depth .....		250
3" casing 20 feet.		

NOTE—The Devonian-Silurian contact occurs in the 60 feet of limestone above 217 feet. The well finished in the Silurian.

#### Log No. 712

Albert Schuler, No. 3, lessor. Daniel Boone Oil Co., lessee. Location: on Buck Creek. Drilled in the spring of 1918. Production: Oil from 173 to 177 feet, water at 150 feet, gas at 190 feet. Authority: Daniel Boone Oil Co.

##### Strata.

Mississippian System.	Thickness	Depth
Shale, hard .....	108	108
Devonian System.		
Shale (Chattanooga) .....	52	160
Limestone "sand" .....	3	163
Shale (fire clay) .....	4	167
Limestone "sand" .....	38	205
Total depth .....		205

NOTE—The Devonian-Silurian contact is toward the base of the last 38 feet of limestone.

#### Log No. 713

Albert Schuler, No. 4, lessor. Daniel Boone Oil Co., lessee. Location: on Buck Creek. Drilled in 1918. Production: oil at 180 feet. Authority: Daniel Boone Oil Co.

Strata.		
Mississippian System.		
Gravel .....	6	6
Limestone .....	30	36
Shale, hard .....	79	115
Devonian System.		
Shale (Chattanooga) .....	44	159
Shale (fire clay) .....	8	167
Limestone .....	9	176
Limestone "sand" .....	32	208
Total depth .....		208

NOTE—The Devonian-Silurian contact occurs in the lower part of the last 32 feet.

#### Log No. 714

Albert Schuler, No. 5 lessor. Daniel Boone Oil Co., lessee. Location: on Buck Creek. Drilled in 1918. Authority: Daniel Boone Oil Co.

Strata.		
Mississippian System.		
Soil and shale, hard .....	110	110
Devonian System.		
Shale (Chattanooga) .....	48	158
Shale, hard, white .....	14	172
Limestone "sand" (gas at 192) .....	33	205
Silurian System.		
Limestone .....	19	224
Total depth .....		224

#### Log No. 715

Albert Schuler, No. 6, lessor. Daniel Boone Oil Co., lessee. Location: on Buck Creek. Drilled in 1918. Production: gas at 188 feet. Authority: Daniel Boone Oil Co.

Strata.		
Mississippian System.		
Shale, hard .....	102	102
Devonian System.		
Shale (Chattanooga) .....	50	152
Shale (fire clay) and limestone .....	10	162
Limestone .....	48	210
Total depth .....		210

NOTE—The Devonian-Silurian contact is within the 48 feet of limestone above 210 feet.

**Log No. 716**

Albert Schuler, No. 7, lessor. Daniel Boone Oil Co., lessee. Location: on Buck Creek. Drilled in 1918. Authority: Daniel Boone Oil Co.

## Strata.

Mississippian System.	Thickness	Depth
Shale, hard .....	147	147
Devonian System.		
Shale (Chattanooga) (water 180) .....	44	191
Clay and shale, hard .....	13	204
Limestone "sand" .....	35	239
Silurian System.		
Shale, hard .....	6	245
Total depth .....		245

**Log No. 717**

Albert Schuler, No. 8, lessor. Daniel Boone Oil Co., lessee. Location: on Buck Creek. Drilled in 118. Authority: Daniel Boone Oil Co.

## Strata.

Mississippian System.	Thickness	Depth
Shale, sandy .....	125	125
Shale, hard .....	140	265
Devonian System.		
Shale (Chattanooga) .....	50	315
Clay .....	10	325
Limestone, (dry) .....	71	396
Total depth .....		396

## MADISON COUNTY.

Production: Small oil and gas. Producing Sand: Corniferous (Devonian) exposed.

## Log No. 718

Snyder, No. 1, lessor. Atlanta Oil & Gas Co., lessee. Location: 1½ miles from Berea. Production: gas and oil show; well abandoned. Authority: Atlanta Oil & Gas Co.

## Strata.

Devonian System.	Thickness	Depth
Shale, black (Chattanooga) .....	36	36
Limestone "sand" brown .....	13	49
Shale, gray .....	5	54
Limestone, (cased) .....	4	58
Shale .....	2	60
Sand .....	5	65
Shale, white .....	3	68
Sand .....	2	70
Shale .....	4	74
Limestone "sand" (small oil show) .....	5	79
Silurian System.		
Limestone .....	11	90
Shale (fire clay) .....	36	126
Total depth .....		126

## Log No. 719

Winn, No. 1, lessor. Atlanta Oil & Gas Co., lessee. Location: ½ mile from Berea. Authority: Atlanta Oil & Gas Co.

## Strata.

Devonian System.	Thickness	Depth
Shale, black (Chattanooga) .....	26	26
"Sand," dark .....	13	39
Shale .....	5	44
Limestone "sand," (oil show) .....	2	46
Shale, white .....	24	70
Limestone "sand" .....	20	90
Shale .....	2	92
Silurian System.		
Limestone "sand" .....	3	95
Shale, (oil show) .....	5	100
Total depth .....		100

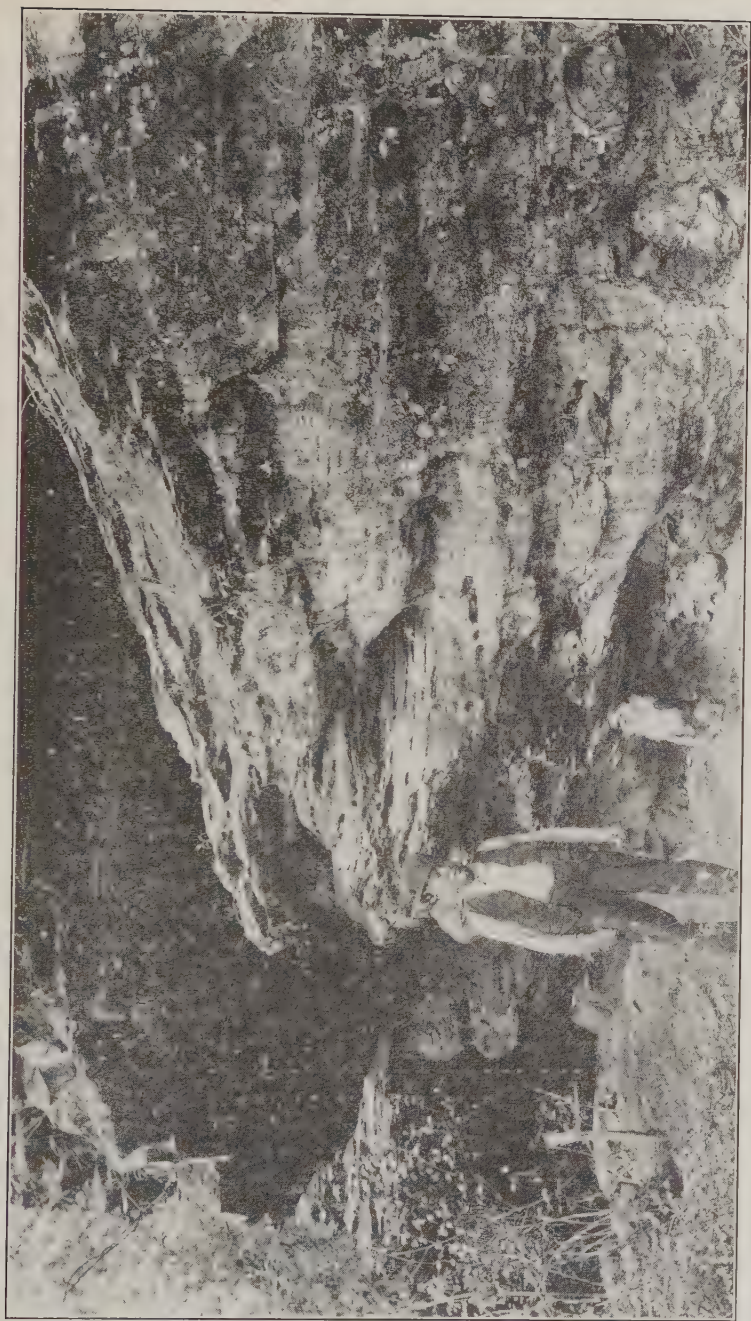
## MAGOFFIN COUNTY.

Production: Oil and Gas. Producing Sands: Pottsville (Pennsylvanian),  
Maxton, Big Lime and Wier (Mississippian).

## Log. No. 720

Harris Howard, lessor, No. 1. Bedrock Oil Co., lessee. Location:  
Meadows Branch of Upper Licking River. Elevation: ???

Strata.	Thickness	Depth
Pennsylvania System.		
Soil .....	26	26
Shale .....	34	60
Coal .....	3	63
Shale .....	104	167
Coal .....	3	170
Sand .....	15	185
Sand, white (show of oil) .....	10	195
Sand .....	80	275
Sand and shale .....	25	300
Shales .....	20	320
Shales .....	155	475
Sand, white (gas at 500') .....	25	500
Sand, white (show of oil) .....	50	550
Sand, salt water at 570' .....	20	570
Shale .....	70	640
Mississippian System.		
Shale .....	100	740
Limestone, white (Big Lime) .....	95	835
Shales .....	80	915
Sand (show of oil) .....	50	965
Shales, Sunbury .....	195	1,160
Sand, salt water near top .....	80	1,240
Shales, sandy shells .....	70	1,310
Soft black shale (Sunbury) .....	40	1,350
Hard, yellow, sandy, shale (Berea) .....	40	1,390



LEGE OF POTTSVILLE CONGLOMERATE.  
This basal sandstone of the coal measures series exhibits where ever it outcrops a marked tendency to form cliff "rock houses." The Pottsville is an excellent oil reservoiring sand and is a possible producer at many points in Kentucky. Photo on the south limb of Rough Creek Anticline, Webster Co., Ky.



Devonian System.	Thickness	Depth
Shale, soft black (Chattanooga) .....	360	1,750
Shale, gray .....	116	1,866
Sandy lime, hard on top, sweet gas .....	8	1,874
Limestone, soft and hard streaks, gray, 1870-1874..	19	1,893
Sand, white, some limestone .....	11	1,904
Limestone, hard and soft streaks .....	12	1,916
Limestone, sandy, little H <sub>2</sub> SO <sub>4</sub> .....	9	1,925
Limestone, hard and soft alternately .....	37	1,962
Total depth .....		1,962

NOTE—At 1,240 casing was drawn, and salt water filled well to within 300 feet of the top.

### Log No. 721

Clay Adams, No. 1. C. K. Dresser, Bradford, Pa., lessee. Location: Head of Raccoon Creek. Production: 5 bbls. prior to shot. Completed to Wier sand, October 2, 1920. Authority: W. G. Roeder, Lexington, Kentucky.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Sandstone, shale and coal .....	420	420
Sand, brown .....	12	432
Sand (hole full of water) .....	38	470
Sand, settling .....	60	530
Mississippian System.		
Limestone, white .....	60	590
Limestone, white mud .....	60	650
Shale, blue .....	80	730
Shale, hard black .....	22	752
Shale, blue .....	135	887
Sand, coarse (gas) .....	8	895
Limestone, sandy .....	5	900
Limestone and shale, broken .....	4	904
Shale, sandy .....	4	908
Limestone, dark gray .....	3	911
Limestone, sandy .....	8	919
Sand, hard, dark .....	2	921
Shale, gray black .....	20	941
Shale, sandy .....	5	946
Sand, coarse, light gray .....	12	958
Sand, light gray .....	18	976
Sand, light gray, Wier .....	1	977
Sand, ½ bbl. oil, Wier .....	14	991
Sand, oil, Wier .....	15½	1,006½
Sand .....	60	1,066½
Total depth .....		1,066½

**Log No. 722**

Keaton No. 1 (?). Location: Mouth of Johnson Creek. Began: June 16, 1914. Finished: August 6, 1914. Production: Dry. Driller, E. Guignon. Authority: L. Beckner.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sand and gravel .....	46	46
Shells and shale, hard .....	54	100
Sand .....	10	110
Shells and shale, hard .....	210	320
Sand .....	10	330
Shale, hard .....	15	345
Sand .....	142	487
Shale, hard .....	76	563
Sand and shale .....	10	573
Sand .....	10	583
Mississippian System.		
Limestone (Big Lime), cased .....	132	715
Sandstone .....	60	775
Sandstone and shale .....	244	1,019
Shale, hard .....	129	1,148
Sand (Wier in part?) .....	107	1,255
Shale, black (Sunbury?) .....	30	1,285
Sand and shells (Berea?) .....	80	1,365
Devonian System.		
Shale .....	330	1,695
Shale, hard, white .....	70	1,765
Silurian System.		
Limestone (oil "sand"), brown .....	185	1,950
Limestone, gray .....	106	2,056
Limestone, sand, white, very hard .....	25	2,081
Limestone, sand, broken .....	22	2,103
Total depth .....		2,103

NOTE—The base of the Silurian and top of the Ordovician is included in 185 feet above 1,950. The record is a very poorly kept one.

**Log No. 723**

Willie Keaton, No. 1. Gypsy Oil & Gas Co., lessee. Location: Johnson Creek, near Nettie P. O., and the southern nipple of Morgan County. Production: Dry.



Strata.		
Pennsylvanian System.		Thickness Depth
Soil .....	18	18
Shale and shells .....	402	420
Sandstone .....	95	515
Shale .....	115	630
Sandstone .....	174	804
Mississippian System.		
Limestone (Little Lime) .....	6	810
Shale .....	2	812
Limestone, (Big Lime) .....	123	935
Shale (Waverly) .....	367	1,302
Shale, black .....	4	1,306
Sandstone (Wier sand?) .....	20	1,326
Shale, white .....	14	1,340
Sandstone (Berea Grit) .....	15	1,355
Shale, white .....	25	1,380
Devonian System.		
Shale, brown .....	298	1,678
Shale, white .....	40	1,718
Limestone (oil show at 1,838) .....	197	1,915
Limestone .....	74	1,989
Total depth .....		1,989

NOTE—The base of the Devonian System and top of the Silurian System is indefinite, being included within the 197 feet of limestone beneath the white shale. The well stopped in the top of a red shale which was not measured.

#### Log No. 724

James Love, No. 1. Browning Oil Co., lessee. T. H. Turner, trustee, lessor. Location: Mine Fork. Elevation: 1,160.

Strata.		
Pennsylvanian System.		Thickness Depth
Soil .....	21	21
Shale, dark 2' coal at 100' .....	334	355
Sand, white (water 465-495) .....	210	565
Shale .....	68	633
Sand, white .....	40	673
Mississippian System.		
Limestone (Little Lime) .....	35	708
Sand, white, soft .....	17	725
Shale, blue .....	3	728
Limestone (Big Lime) .....	40	768

## Mississippian System.

	Thickness	Depth
Sand and shale .....	306	1,074
Sand, gray, gas .....	11	1,085
Shale, blue .....	38	1,123
Sand, gray, hard (show oil 1,127-1,132).....	24	1,147
Shale, Wier sand 42 feet .....	6	1,153
Sand, oil show, Wier sand 42 feet .....	6	1,159
Shale, Wier sand 42 feet .....	6	1,165
Sand, hard, Wier sand 42 feet .....	24	1,189
Shale, black (Sunbury) .....	12	1,201
Shale, black, sandy (Sunbury) .....	6	1,207
Sand, Berea .....	3	1,210
Sand, hard, gray, Berea .....	41	1,251
Sand, light break, Berea .....	6	1,257
Sand, break, Berea .....	3	1,260
Sand, hard, Berea .....	32	1,292

## Devonian System.

Shale, black .....	408	1,700
Total depth .....		1,700

NOTE—White shale showed at 1,700, the bottom of the well. The drill stopped undoubtedly at or very close to the Devonian limestone.

## Log No. 725

Browning Oil Co., No. 1, lessee. John Mart Phipps, lessor.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Conductor 8" .....	24	24
Sand, gray (water at 150) .....	226	250
Shale, dark .....	30	280
Sand .....	50	330
Shale .....	10	340
Sand .....	20	360

## Mississippian System.

Limestone .....	20	380
Shale, (Pencil Cave) .....	13	393
Limestone (Big Lime) .....	45	438
Shale, pea green .....	257	695
Shale, bluish black .....	53	748
Sandstone, gray, (oil and gas show) .....	41½	752½
Sand, gray .....	61½	759
Sand, gray, good show oil .....	41½	763½
Sand, gray, oil .....	9	772½
Shale, blue .....	20	792½
Sand, gray, oil .....	18	810½

Mississippian System.	Thickness	Depth
Sand, soft brown, good oil, Wier sand .....	1	811½
Sand, second pay, Wier sand .....	3	814½
Shale, blue, break, Wier sand .....	9½	824
Sand, some gas, Wier sand .....	2	826
Sand, gray-brown, gas, Wier sand .....	3½	829½
Sand, gray, no oil, Wier sand .....	4	833½
Sand, gray, little oil, Wier sand .....	2½	836
Shale, blue, Wier sand .....	6½	842½
Sand, gray-brown, (show oil?), Wier sand ...	11	853½
Shale, dull, Wier sand .....	6	859½
Shale, "Sunbury" .....	21½	862
Total depth .....		862

## Log No. 726

T. M. Cooper, No. 1. Browning Oil Co., lessee. Location: Brushy Fork, Fork of Licking River. Salt water: one bailer per hour.  
Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	5	5
Sand, coarse .....	45	50
Shale .....	100	150
Sand, coarse .....	50	200
Sand, fine, white .....	170	370
Shale, brown .....	90	460
Sand, gray .....	40	500
Mississippian System.		
Limestone and shale .....	32	532
Limestone, light brown .....	16	548
Limestone and shale .....	12	560
Limestone, black .....	20	580
Limestone, white .....	65	645
Shale, red, sandy .....	8	653
Shale, blue .....	232	885
Sand, broken, and shale .....	33	918
Sand and shale .....	44	962
Sand, white .....	12	974
Shale .....	6	980
Sand, white, Wier correlative .....	63	1,043
Shale, Wier correlative .....	4	1,047
Sand, white, Wier correlative .....	4	1,051
Sand, white, Wier correlative .....	13	1,064
Shale, gray and black (Sunbury) .....	36	1,100
Sandstone (Berea) .....	25	1,125
Shale, blue .....	10	1,135

## Devonian System.

Thickness Depth

Shale, black .....	8	1,143
Shale, blue .....	10	1,153
Total depth .....		1,153

## Log No. 727

L. C. Bailey, No. 1, lessor. Formerly owned by Browning Pet. Co., now by Cumberland Pet. Co. Production: Reported 40 bbls. Elevation: 1,045.

## Strata.

## Pennsylvanian System.

Thickness Depth

Sand and gravel .....	30	30
Sand .....	6	36
Shale .....	12	48
Coal .....	2	50
Sand .....	35	85
Sand .....	110	195
Shale .....	45	240
Sand .....	30	270
Shale .....	35	305
Sand, settling .....	160	465
Shale .....	85	530
Sand .....	40	570
Shale, blue .....	35	605
Sand, blue, hard .....	5	610
Shale, blue .....	8	618

## Mississippian System.

Limestone, white (Little lime) .....	8	626
Shale, blue (Pencil cave) .....	18	644
Limestone (Big Lime) .....	61	705
Sandy shale, pea green .....	185	890
Shale, blue .....	85	975
Sand, gray-brown, oil, Wier sand .....	29	1,004
Shale, blue, Wier sand .....	14	1,018
Sand, oil, Wier sand .....	17	1,035
Shale, blue .....	10	1,045
Sand, gray-brown .....	8	1,053
Total depth .....		1,053

**Log No. 728**

Hostin Conley, lessor. Mine Fork Pet. Co., lessee. Location: Headwaters of Mine Fork Creek, on a branch of Litteral Fork. Elevation: 950.

## Strata.

Pennsylvanian System.	Thickness	Depth
Shale .....	68	68
Sand (show oil and gas) .....	14	82
Shale .....	390	472
Sand .....	84	556
Mississippian System.		
Limestone (Little Lime) .....	22	578
Shale (Pencil Cave) .....	8	586
Limestone (Big Lime) .....	60	646
Shale sand .....	104	750
Shale .....	168	918
Sand, grayish brown (pay oil) .....	16	934
Shale .....	15	949
Sand, grayish brown, Wier sand .....	29	978
Shale, Wier sand .....	7	985
Sand (pay oil), Wier sand .....	18	1,003
Shale .....	10	1,013
Sand, gas in top .....	13	1,026
Total depth .....		1,026

**Log No. 729**

Crate Meade, No. 1, lessor. Browning Pet. Co., lessee. Location: Headwaters of Pigeon Creek, near Johnson County line. Production: 37 bbls. oil and 300,000 ft. gas. Elevation: 1,020.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sandstone, shales and coals .....	609	609
Mississippian System.		
Limestone, (Big Lime) .....	53	662
Unrecorded sediments .....	279	941
Sand (1st), Wier sand .....	22	963
Shale (break), Wier sand .....	21	984
Sand, (2nd), Wier sand .....	12	996
Shale (break), Wier sand .....	17	1,013
Sand, Wier sand .....	3	1,016
Total depth .....		1,016

**Log No. 730**

R. B. Griffith, No. 3. Near Wheelersburg P. O. Production: Last two feet in gas sand. Estimated: 15 bbls. oil.

## Strata.

Pennsylvanian System.	Thickness	Depth
Unrecorded sediments .....	6241 $\frac{1}{2}$	6241 $\frac{1}{2}$
Mississippian System.		
Limestone (Big Lime), Top at .....		6241 $\frac{1}{2}$
Unrecorded sediments .....	258	8821 $\frac{1}{2}$
Sand (1st) .....	123	1,0051 $\frac{1}{2}$
Shale .....	21	1,0261 $\frac{1}{2}$
Sand (pay oil), Wier sand .....	29	1,055 $\frac{1}{2}$
Shale, Wier sand .....	9	1,064 $\frac{1}{2}$
Sand (pay oil), Wier sand .....	3	1,067 $\frac{1}{2}$
Total depth .....		1,0671 $\frac{1}{2}$

**Log No. 731**

Milt Wheeler, No. 2, lessor. Bedrock Oil Company, lessee. Location: Litteral Fork near Wheelersburg. Production reported: 15 bbls. of oil.

## Strata.

Pennsylvanian System.	Thickness	Depth
Unrecorded sediments .....	500	500
Mississippian System.		
Limestone (Big Lime, top at 500) .....	...	500
Limestone (Big Lime) and sandy shale .....	340	840
Sand, 1st (Wier) .....	25	865
Shale .....	20	885
Sand .....	28	913
Shale .....	7	920
Sand, gas sand .....	13	933
Shale .....	5	938
Sand .....	3	941
Total depth .....		941

**Log No. 732**

Daniel Victoria, No. 1, lessor. Fred Courson, lessee. Location: on Brushy Fork.

## Strata.

Pennsylvanian System.	Thickness	Depth
Unrecorded sediments .....	588	588

Mississippian System.	Thickness	Depth
Limestone (Big Lime—top 588) .....		588
Cased at 594		
Limestone (Big Lime) and sandy shales .....	376	964
Sand (Wier) .....	76	1,040
Total depth .....		1,040

NOTE—Since 76 feet is somewhat too thick for the Wier sand normally, it is probable that the driller included by mistake at least one or two higher strata.

### Log No. 733

John Blanton, No. 1, lessor. Structural Oil Co., lessee. Elevation: 960. Production reported: 15 bbls. oil. Shot, 80 qts.

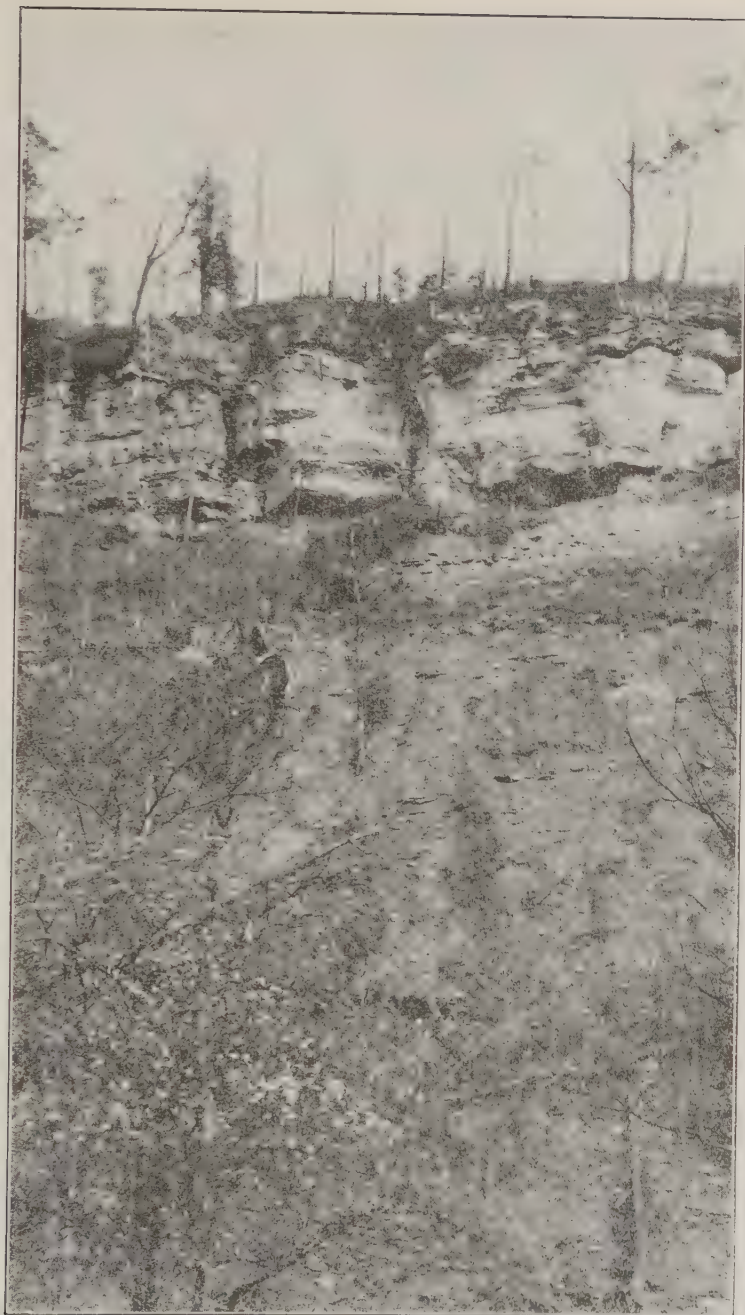
#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil and blue shale .....	29	29
Sand .....	10	39
Shale, blue .....	61	100
Shale, black .....	60	160
Sand .....	30	190
Shale, blue .....	10	200
Sand, white, water at 300 (oil) .....	165	365
Shale .....	100	465
Sand, settling .....	20	485

#### Mississippian System.

Limestone, hard, shells .....	40	525
Limestone (Little Lime) .....	5	530
Shale (Pencil Cave) .....	10	540
Lime (Big Lime) .....	70	610
Shale, green .....	165	775
Limestone, hard, shell .....	55	830
Shale, dark .....	38	868
Sand (oil and gas) .....	2	870
Sand .....	10	880
Shale .....	27	907
Sand (oil) .....	23	930
Shale .....	9	939
Sand, gas showing .....	12	951
Sand .....	5	956
Total depth .....		956





AN EXCELLENT MISSISSIPPIAN EXPOSURE

The clifted strata above is the St. Louis Limestone (lower part of the "Big Lime"), and below occur the green, shaley and sandy Logan and Cuyahoga formations. Photo  $\frac{1}{4}$  mile above Glencarin, Wolfe County, Kentucky.



**Log No. 734**

Buddie Blanton, lessor. L. S. Roberts, et. al., lessees. Lower No. 1. Location:  $\frac{1}{2}$  mi. from mouth of Panther's Lick. Elevation: 920 feet.

## Strata.

Pennsylvanian System.	Thickness	Depth
Unrecorded sediments .....	600	600
Mississippian System.		
Limestone (Big Lime) .....	75	675
Unrecorded sediments .....	237	912
Sand (Wier) and shale .....	74	986
Sandy shale including Sunbury to .....		986
Total depth .....		986

NOTE—The last 74 feet of this well includes not only the Wier sand, but also the underlying Sunbury shale, and a small upper portion of the Berea. A nice show of oil in the Berea is reported. This well shot with 60 quarts.

**Log No. 735**

Milt Wheeler, No. 1, lessor. Bedrock Oil Co., lessee. Location: Litteral Fork near Wheelersburg. Production reported: 22 bbls. of oil.

## Strata.

Pennsylvanian System.	Thickness	Depth
Unrecorded sediments .....	854	854
Mississippian System.		
Sand, 1st (Wier) .....	23	877
Shale .....	25	902
Sand (Wier) .....	30	932
Total depth .....		932

**Log No. 736**

D. B. Cooper, No. 1, lessor. Location: Head of Lick Creek. Drillers: Ben Creed, Algin Messer. Completed and shot April 9, 1921, with 30 quarts in first pay, and 40 quarts in second pay. Had 650 feet fluid in hole Monday, A. M., April 11th, 1921.

## Strata.

Pennsylvanian System.	Thickness	Depth
Surface soil (conductor) .....	7	7
Shale, gritty .....	187	194

## Pennsylvanian System.

	Thickness	Depth
Sand (50 ft. bottom settles) .....	220	414
Shale .....	75	489
Sand (3 breaks) .....	45	534
Shale .....	13	547
Limestone, sandy .....	8	555
Shale .....	9	564

## Mississippian System.

Limestone, black .....	6	570
Shale .....	5	575
Limestone (Little Lime) .....	10	585
Shale (Pencil Cave) .....	20	605
Limestone (Big Lime), casing 613 .....	83	688
Shale, light gray .....	160	848
Shale dark gray (shells) .....	125	973
Sand .....	4	977
Shale, black .....	16	993
Sandstone (Wier), (Top 993) .....	1/2	993 1/2
First pay, Wier sand .....	25	1,018 1/2
Break, Wier sand .....	3	1,021 1/2
Second pay, Wier sand .....	22	1,043 1/2
Total depth .....		1,043 1/2

## Log No. 737

Bud Gullet, No. 1, lessor. Location: State Road Fork. Elevation: 1,059.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Sand, gravel .....	20	20
Sandstone, hard .....	8	28
Shale .....	36	64
Sandstone .....	35	99
Shale .....	85	184
Sandstone .....	25	209
Shale .....	45	254
Shale, sandy, dark blue .....	25	279
Sand, gray .....	66	345
Shale .....	10	355
Sandstone .....	15	370
Sand, settling .....	70	440
Shale .....	100	540
Sand, dark .....	25	565
Shale, soft .....	10	575
Sand, hard, blue .....	5	580
Shale .....	..	..

NOTE—This record is all in the Coal Measures, and is incomplete.

**Log No. 738**

Jack Whittaker Well. Incomplete record, drilling Oct. 22, 1921. Drilling started, April 9, 1921. Location: Arnett Branch of Burning Fork  $4\frac{1}{2}$  miles (airline) southeast of Salyersville. Production: Oil and gas shows only; plugged and abandoned. Authority: S. L. Yunker.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, Pottsville .....	38	38
Shale, Pottsville .....	132	170
Sand, Pottsville .....	30	200
Shale, Pottsville .....	160	360
Sand, Pottsville .....	30	390
Shale, Pottsville .....	30	420
Sand, Pottsville ....	318	738
Shale, Pottsville .....	12	750
Mississippian System.		
Limestone (Little Lime) .....	10	760
Shale (Pencil Cave) .....	15	775
Limestone (Big Lime) .....	117	892
Shale (Waverly), (oil show 1,106-1,111) ....	215	1,107
Sand (Wier), (salt water 1,145-1,151) .....	131	1,238
Shale .....	54	1,292
Shale (Sunbury) .....	12	1,304
Sandstone (Berea) .....	53	1,357
Devonian System.		
Shale, black (Chattanooga) .....	378	1,735
Limestone and white shale .....	137	1,872
Limestone, black .....	28	1,900
Ordovician System.		
Limestone, brown .....	12	1,912
Limestone, gray .....	18	1,930
Limestone, flinty .....	20	1,950
Limestone, tight, (sulphur gas 1,952) .....	30	1,980
Limestone, white .....	30	2,010
Limestone, blue .....	50	2,060
Limestone, gray .....	43	2,103
Limestone, brown .....	17	2,120
Limestone, gray .....	42	2,162
Limestone, blue .....	20	2,182
Limestone, light gray .....	11	2,193
Limestone, black .....	17	2,210
Limestone, white .....	7	2,217
Limestone, gray .....	13	2,230

## Ordovician System.

	Thickness	Depth
Limestone, brown, fine .....	62	2,292
Limestone, brown, coarse .....	26	2,318
Limestone, brown .....	14	2,332
Limestone, gray .....	56	2,388
Limestone, brown .....	15	2,403
Limestone, blue .....	19	2,422
Limestone, white, flaky .....	40	2,462
Shale, green .....	10	2,472
Shale (red rock) .....	68	2,540
Shale, green .....	50	2,590
Shale, white .....	55	2,645
Shale (red rock) .....	70	2,715
Shale, arenaceous .....	141	2,856
Shale (red rock) .....	24	2,880
Shale, arenaceous .....	70	2,950
Limestone, soft .....	387	3,337
Limestone, broken .....	613	3,950
Incomplete depth .....		3,950

NOTE—The Devonian-Silurian contact occurs toward the top of the 137 feet of limestone and shale above 1,872 feet, and was not noted by the driller.

## Log No. 739

Sherman Rice, No. 1, lessor. Ivyton Oil & Gas Co., lessee. Location: Kelly Branch of Burning Fork, Ivyton. Date Drilled: July 9, 1921. Contractor: Gentry. Orig. Open Flow: 1,000,000 cu. ft. gas. Orig. Rock Press.: 390. lbs. Casinghead elevation: 965.5. Authority: Louisville Gas & Electric Co.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Soil .....	28	28
Shale .....	52	80
Lime shell .....	40	120
Shale .....	250	370
Sandstone .....	330	700
Shale .....	3	703
Sandstone .....	37	740
Shale .....	16	756

## Mississippian System.

Limestone (Little Lime) .....	13	769
Cave .....	3	772

Mississippian System.	Thickness	Depth
Limestone, (Big Lime) .....	10	782
Limestone, (Big Lime) .....	58	840
Shale .....	225	1,065
Sandstone .....	20	1,085
Shale .....	11	1,096
Sandstone (Wier) .....	22	1,118
Total depth .....		1,118

**Log No. 740**

Cordelia Grace, No. 1, lessor. Ivyton Oil & Gas Co., lessee. Location: Ivyton. Contractor: Gentry. Orig. Open Flow: 350,000 cu. ft. gas. Shot. Orig. Rock Press.: 265 lbs. Casinghead elevation: 924.8. Authority: Louisville Gas & Electric Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	30	30
Shale, black .....	155	185
Shale, white .....	180	365
Sandstone .....	350	715
Shale .....	5	720
Sandstone .....	30	750

## Mississippian System.

Limestone (Little Lime) .....	25	775
Cave .....	6	781
Limestone (Big Lime) .....	59	840
Shale, gray .....	210	1,050
Shale, black .....	8	1,058
Sandstone .....	80	1,138
Shale .....	2	1,140
Sandstone (Wier) .....	38	1,178
Shale (Sunbury) .....	22	1,200
Sandstone, brown .....	35	1,235
Sandstone (Berea) .....	33	1,268
Shale, brown .....	6	1,274
Total depth .....		1,274

## Log No. 741

W. Spradlin, No. 1, lessor. Ivyton Oil & Gas Co., lessee. Location: Middle Creek, Ivyton, Ky. Contractor: Gentry. Date Drilled: Aug. 13, 1921. Production: Dry. Authority: Louisville Gas & Electric Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	10	10
Limestone .....	30	40
Shale .....	285	325
Sandstone .....	345	670

## Mississippian System.

Shale, sandy, red .....	2	672
Limestone (Little Lime) .....	22	694
Cave .....	5	699
Limestone (Big Lime) .....	141	840
Shale, gray .....	220	1,060
Shale, black .....	10	1,070
Shale, black .....	12	1,082
Shale, white .....	38	1,120
Shale, black .....	10	1,130
Shale .....	15	1,145
Shale, brown .....	6	1,151
Sandstone .....	24	1,175
Shale .....	10	1,185
Sandstone .....	20	1,205
Shale, brown .....	16	1,221
Total depth .....		1,221

## Log No. 742

George Grace, No. 1, lessor. Ivyton Oil & Gas Co., lessee. Location: Grace Branch of Middle Creek, Ivyton. Contractor: Gentry. Date drilled: Aug. 30, 1921. Orig. Open Flow: 556,000 cu. ft. gas. Shot. Orig. Rock Press.: 390 lbs. Authority: Louisville Gas & Electric Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	19	19
Limestone and sandstone .....	106	125
Shale .....	427	550
Sandstone .....	165	715
Shale .....	2	717

Pennsylvanian System.	Thickness	Depth
Sandstone .....	163	880
Shale .....	5	885
Sandstone .....	25	910
Shale .....	4	914

## Mississippian System.

Limestone (Little Lime) .....	10	924
Cave .....	22	946
Limestone (Big Lime) .....	24	970
Shale (Waverly) .....	124	1,094
Sandstone .....	20	1,114
Shale (Waverly) .....	58	1,172
Sandstone (Wier) .....	28	1,200
Sandstone (Wier), hard .....	12	1,212
Total depth .....		1,212

## Log No. 743

Elzo Dotson, No. 2, lessor. Ivyton Oil & Gas Co., lessee. Location: Mash Branch of Burning Fork. Contractor: Potts. Date drilled: Oct. 20, 1921. Orig. Open Flow: 750,000 cu. ft. gas. Shot. Orig. Rock Press.: 350 lbs. Authority: Louisville Gas & Electric Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	15	15
Shale .....	40	55
Sandstone .....	15	70
Shale .....	165	235
Sandstone .....	35	270
Shale .....	145	415
Sandstone .....	20	435
Shale .....	10	445
Sandstone .....	350	795
Shale .....	40	835

## Mississippian System.

Limestone (Little Lime) .....	20	855
Cave .....	2	857
Limestone (Big Lime) .....	63	920
Shale, gray .....	240	1,160
Shale, black .....	15	1,175
Sandstone .....	15	1,190

Mississippian System.	Thickness	Depth
Sandstone, hard .....	13	1,203
Sandstone .....	8	1,211
Sandstone, hard .....	2	1,213
Total depth .....		1,213

NOTE—This well showed some oil, but shot ruined same.

Herewith are given a number of "sand" records. These logs are all incomplete, the thickness of the Pennsylvanian System and the uppermost beds of the Mississippian System having been omitted by the driller.

#### Log No. 744

R. B. Griffith, No. 1, lessor. Bedrock Oil Company, lessee. Location: Litteral Fork near Wheelersburg.

	Top	Bottom
Top, Big Lime, all Mississippian .....	467	...
First sand, all Mississippian .....	819	836
Shale, all Mississippian .....	836	858
Sand (Wier oil), all Mississippian .....	858	888
Shale, all Mississippian .....	888	893
Sand with gas, all Mississippian .....	893	906
Shale, all Mississippian .....	906	924
Total depth .....		924

#### Log No. 745

R. B. Griffith, No. 2, lessor.

	Top	Bottom
Top, Big Lime.....	...	580
Sand .....	943	965
Shale .....	965	984 1/2
Sand, pay .....	984 1/2	1,013
Shale .....	1,013	1,020
Sand, gas .....	1,020	1,038
Total depth .....		1,038

Shot, 20 qts. in 1st, and 60 qts. in 2nd. Production: 10 bbls. oil.



**Log No. 746**

Milt Wheeler, No. 3

	Top	Bottom
Top, Big Lime at .....	...	460
First sand, show oil & gas .....	800	823
Shale .....	823	846 $\frac{1}{2}$
Sand (Wier oil) .....	846 $\frac{1}{2}$	872
Shale .....	872	881 $\frac{1}{2}$
Sand, good flow gas .....	881 $\frac{1}{2}$	898 $\frac{1}{2}$
Shale .....	898 $\frac{1}{2}$	901
Total depth .....		901

Shot with 20 qts. in 1st pay and 60 qts. in 2nd pay. Production: 18 bbls oil.

**Log No. 747**

Vernon Kelley, lessor. Myers & Turner, lessee. Location: Two miles west of Ivyton.

	Bottom
Top of Big Lime at .....	718
Top of Wier .....	1,015
Gas at .....	1,040
Show of oil .....	1,081

**Log No. 748**

Dave Conley, lessor. Mid South Oil Co., lessee. Location: Litteral Branch. Elevation: 970. Completed: June 12, 1920. Production: 30 bbls. oil.

	Top	Bottom
Wier sand top .....	...	866
Wier sand .....	866	886
Dark shale .....	886	909
Sand .....	909	936
Dark shale .....	936	948
Sand .....	948	961
Good show oil .....	909	931

**Log No. 749**

M. Collins, lessor. Location: One mile west of Oil Springs on State Road Fork of Little Paint Creek. Elevation: 906. Production: 6 bbls. oil. Shot, 40 qts. 884 ft. gas.

	Top	Bottom
Gas .....	60	200
Settling sand .....		185
Big Lime .....	560	620
Cased .....		525
Pea green shale sand .....	620	824
1st pay sand .....	854	863
Brown shale, shells .....	863	900
Gas, gray brown sand .....	900	911
Soft mud .....	903	907
Blue shale .....	911	945
Coffee shale .....	945	960
Berea .....	960	980

**Log No. 750**

Pit Whitten, No. 1, lessor. Sidney Oil Co., lessee. Location: Painter Lick Fork of Little Paint Creek. Production: 12 bbls. oil natural.

	Top	Bottom
Gas at .....	...	250
Top of lime .....	...	723
1st oil show .....	...	1,010
Depth .....		1,068

**Log No. 751**

Bud Blanton, lessor. Sidney Oil Co., lessee. Location: Painter Lick Fork of Little Paint Creek. Production: 15 bbls. oil. Shot, 60 qts.

	Top	Bottom
Gas & 1 bbl. oil .....	250	278
Top of lime .....	...	810
First oil .....	...	1,045
Sand, best oil .....	1,045	1,057
Break .....	1,060	1,064
Sand (pay) .....	1,064	1,069

	Top	Bottom
Break .....	1,069	1,075
Sand (gas & oil in last screw) .....	1,075	1,100
Break .....	1,100	1,118
Sand, good quality .....	1,118	1,135
Sand shale .....	1,135	1,147
Bottom hole .....	...	1,147

**Log No. 752**

W. B. Bailey, No. 1, lessor. Location: On State Road Fork, two miles west of Oil Springs. Drilled in June 23, 1920.

	Top	Bottom
Top of lime at .....	...	564
Bottom of lime at .....	...	654
Sand .....	...	897
Pay .....	...	921
Blue shale .....	921	934
Sand loft oil gas 8 ft. ....	834	952
Bottom hole .....	...	954

**MARTIN COUNTY.**

Production: Oil and Gas. Producing sands: Maxton, Big Lime, Big Injun, Wier, and Berea (Mississippian).

**Log No. 753**

Malissa Ward, No. 1, lessor. Mayo Gas & Oil Co., lessee. Location: On Rockhouse Fork of Rockcastle Creek, 4 miles west of Inez. Commenced October 6, 1919. Shut down October 20, 1919. Drilling recommenced Nov. 10, 1919. Completed March 24, 1920. Conductor 22' 1" 13½ Casing 10" 201' 6' Casing 8" 1043' 7" Casing 6½ 1255' Tubing 1274' 10" 2". Casing pulled out 8¼" 1043' 7".

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil and sand .....	21	21
Coal bloom .....	1	22
Shale, black (fresh water) .....	53	75
Limestone .....	50	125
Shale, white .....	75	200
Limestone .....	10	210
Coal .....	5	215
Shale, black .....	60	275
Limestone .....	25	300
Shale, gray .....	75	375
Sand (First Dunkard) .....	25	400

## Pennsylvanian System.

	Thickness	Depth
Shale .....	75	475
Shale (Second Dunkard) .....	25	500
Sand, salt, (salt water 540) .....	125	625
Shale, dark .....	5	630
Sand, salt .....	100	730
Shale, dark .....	10	740
Sand .....	60	800

## Mississippian System.

Limestone .....	25	825
Shale .....	15	840
Sand .....	20	860
Limestone .....	25	885
Shale (salt water) .....	15	900
"Sand" (Maxton) .....	15	915
Limestone .....	10	925
Shale (Red Rock), (salt water) .....	5	930
"Sand" (Maxton) .....	80	1,010
Shale, dark .....	5	1,015
Shale, red, sandy .....	5	1,020
Shale, dark .....	40	1,060
Limestone, dark .....	29	1,089
Shale (pencil cave) .....	2	1,091
Limestone, dark .....	6	1,097
Limestone (Big Lime), white .....	173	1,270
Sand, red (Big Injun) .....	20	1,290
Shale, white .....	60	1,350
Shale, black, and shells .....	287	1,637
Limestone shells, dark .....	10	1,647
Shale, dark brown .....	40	1,687
Sand, (gas) .....	6	1,693
Shale, white .....	19	1,712
Limestone, black .....	11	1,723
Shale, dark, and shells .....	20	1,743
Sand, hard .....	10	1,753
Shale, blue .....	14	1,767
Limestone, sandy .....	23	1,790

## Devonian System.

Shale, black (Chattanooga) .....	125	1,915
"Sand," dark .....	12	1,927
Shale, dark (Chattanooga) .....	682	2,609
Shale, brown .....	26	2,635
Limestone (Corniferous, upper 50 ft.) .....	500	3,135
Total depth .....		3,135

Break of shale 2 ft. at 3,090.. Break of shale 5 ft. at 3,125. Last limestone showed all colors, no two screws alike. Oil show in Big Lime 1210-1215. Gas in last limestone 2849-2864.

NOTE—Neither the Berea or Weir sands shows characteristically in this record. The base of the Devonian and top of the Silurian, as well as the base of the Silurian and top of the Ordovician, are included within the 682 feet of "dark shale," probably a succession of limestones just below 1,927 feet. The last 1,220 feet of this record was very slovenly kept.

### Log No. 754

Lewis Dempsey, No. 1, lessor. United Fuel & Gas Co., lessee. Location: Forks of Pipe Mud & Holty Branches of Wolf Creek. Authority: Adkins, Supt. Completed: Dec., 1918. Driller. Lohman. Elevation: 620. (aneroid). 5 bailers of salt water per hour from Injun sand.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Conductor .....	16	16
Sand .....	34	50
Coal .....	5	55
Sand .....	60	115
Coal .....	6	121
Sand .....	97	218
Coal, cannel .....	4	222
Sand .....	13	235
Coal .....	3	238
Sand, (salt water 221-436) .....	198	436
Coal .....	11½	437½
Sand .....	1½	438
Gray and broken sand and shells .....	507	945
Shale .....	5	950
Sand .....	60	1,010
Break .....	8	1,018
Sand .....	37	1,055
Shale .....	20	1,075
Sand, (base of Pottsville) .....	130	1,205

## Mississippian System.

	Thickness	Depth
Sand .....	80	1,285
Sand (Maxon), (light oil show 1,312) .....	40	1,325
Red rock .....	80	1,405
Pencil cave (6 in. casing to 1,455) .....	15	1,420
Limestone .....	150	1,570
Red rock and lime shells .....	30	1,600
Sand, Injun, (gas show) .....	60	1,660
Shale and lime shells, (more gas) .....	60	1,720
Shale and shells .....	235	1,955

## Devonian System.

Shale, very black at bottom .....	260	2,215
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## Silurian System.

Sand, Niagara, (light oil show 2,215) .....	45	2,260
Shale, black .....	35	2,295
Total depth .....		2,295

## Log No. 755

Lewis Dempsey, No. 1, (Elk Creek Tract) lessor. United Fuel & Gas Co., lessee. Location: Head of Big Elk Creek. Production: 559,000 cu. ft. gas. Rock pressure: 275 lbs. Authority: C. M. Goodwill, driller.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Clay .....	11	11
Sand .....	59	70
Shale and shell .....	54	124
Coal .....	3	127
Shale .....	13	140
Limestone .....	20	160
Shale .....	10	170
Coal .....	4	174
Sand .....	16	190
Shale .....	40	230
Sand .....	20	250
Shale .....	10	260
Limestone .....	52	312
Limestone .....	10	322
Shale and shell .....	178	500
Sand .....	45	545
Shale, black .....	50	595

Pennsylvanian System.	Thickness	Depth
Sand .....	55	650
Shale .....	40	690
Sand (1st salt sand) .....	65	755
Shale .....	30	785
Sand (2nd salt sand) .....	205	990
Shale .....	40	1,030
Mississippian System.		
Sand .....	57	1,087
Shale .....	81	1,168
Sand (Maxon) .....	11	1,179
Shale shells .....	34	1,213
Red rock .....	2	1,215
Total depth .....		1,215

### Log No. 756

Lewis Dempsey, No. 2, lessor. United Fuel & Gas Co., lessee. Location: Buck Creek, right fork. Drilled: June 15, 1916. Production: 7,500 cu. ft. gas per day. Rock pressure: 350 lbs. Authority: W. F. Taylor & R. N. Dunbar, drillers.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Clay .....	20	20
Quicksand .....	7	27
Clay, blue .....	7	34
Sand .....	26	60
Shale .....	30	90
Limestone? .....	5	95
Coal .....	4	99
Shale .....	6	105
Limestone? .....	15	120
Shale .....	20	140
Limestone? .....	25	165
Shale .....	20	185
Limestone? .....	20	205
Shale .....	40	245
Sand, (show of gas 340) .....	105	350
Shale, brown .....	30	380
Shale, hard .....	20	400
Limestone? .....	15	415
Shale .....	40	455
Sand (1st salt sand) .....	120	575

## Pennsylvanian System.

	Thickness	Depth
Break .....	2	577
Sand (2nd salt sand), (2 bailers per hour at 695) .....	118	695
Sand .....	17	712
Sand .....	41	753
Break .....	1	754
Sand, black, (base Pottsville?) .....	2	756

## Mississippian System.

Sand, white .....	34	790
Shale .....	15	805
Limestone .....	10	815
Shale .....	45	860
Fire clay .....	8	868
Red rock .....	22	890
Limestone, hard .....	16	906
Shale, white .....	7	913
Limestone shells .....	1	914
Red rock .....	8	922
Limestone, black .....	20	942
Shale .....	8	950
Limestone .....	15	965
Red rock .....	7	972
Sand .....	3	975
Shale .....	8	983
Limestone shells .....	5	988
Red rock .....	37	1,025
Limestone shells .....	3	1,028
Shale .....	5	1,032
Limestone (Little Lime) .....	27	1,060
Shale .....	15	1,075
Shale (Pencil Cave) .....	10	1,085
Limestone (Big Lime) .....	230	1,315
Red rock .....	14	1,329
Sand, (Big Injun) .....	44	1,373
Limestone, sandy .....	52	1,425
Shale .....	45	1,470
Shale, black .....	25	1,495
Shale .....	35	1,530
Sand .....	10	1,540
Shale, black .....	135	1,675
Limestone shells .....	5	1,680
Shale, black (Sunbury) .....	120	1,800
Sand (Berea) .....	14	1,814
Limestone shells .....	25	1,839
Total depth .....		1,839



**Log No. 757**

Lewis Dempsey, No. 1, (Warfield Tract), lessor. United Fuel & Gas Co., lessee. Location: Martha Boone Hollow of Right Fork of Buck Creek. Production: 96,000 cu. ft. gas. Rock pressure: 310 lbs. Authority: J. R. McCleary, driller.

Strata.		
Pennsylvanian System.		Thickness Depth
Conductor .....	16	16
Sand .....	242	258
Shale and limestone .....	257	515
Sand .....	45	560
Shale and limestone .....	30	590
Sand, salt .....	290	880
Mississippian System.		
Shale and limestone shells .....	35	915
Sand (Maxon) .....	25	940
Limestone shells .....	40	980
Shale, black (pencil cave) .....	40	1,020
Sand (Maxon), 2nd, (gas 1,040) .....	40	1,060
Shale and red rock .....	83	1,143
Sand .....	10	1,153
Red rock .....	27	1,180
Shale (Pencil Cave) .....	75	1,255
Limestone (Big Lime), (gas 1,313) .....	175	1,430
Red rock .....	15	1,445
Limestone shell .....	150	1,595
Shale .....	353	1,948
Shale .....	12	1,960
Sandstone (Berea grit), (gas 1,950) .....	75	2,035
Limestone shells .....	15	2,050
Total depth .....		2,050

**Log No. 758**

Lewis Dempsey, (Tract No. 1, well No. 1), lessor. United Fuel & Gas Co., lessee. Location: Head of Big Elk Creek. Production: Dry hole. Authority: D. S. Osborne & R. M. Dunbar, drillers.

Strata.		
Pennsylvanian System.		Thickness Depth
Clay .....	9	9
Shale .....	66	75
Sand .....	45	120

Pennsylvanian System.	Thickness	Depth
Shale .....	42	162
Coal .....	5	167
Shale .....	18	185
Sand .....	35	220
Shale .....	35	255
Sand .....	20	275
Shale .....	45	320
Limestone .....	25	345
Shale .....	70	415
Limestone .....	30	445
Shale .....	25	470
Limestone .....	10	480
Shale .....	25	505
Sand .....	55	560
Limestone .....	40	600
Sand, salt .....	190	790
Shale .....	50	840
Limestone, black .....	25	865
Shale .....	5	870
Limestone, black .....	10	880
Shale .....	84	964
Sand .....	14	978
Shale .....	5	983

## Mississippian System.

Red rock .....	15	998
Shale .....	27	1,025
Red rock .....	60	1,085
Sand (Maxon) .....	8	1,093
Shale .....	22	1,115
Red rock .....	10	1,125
Shale .....	25	1,150
Limestone .....	10	1,160
Shale .....	5	1,165
Limestone (Little Lime) .....	21	1,186
Shale (Pencil Cave) .....	4	1,190
Limestone (Big Lime) .....	190	1,380
Sand, Injun .....	15	1,395
Shale .....	75	1,470
Total depth .....		1,470

NOTE—Fresh water at 65 ft.; hole full. Salt water at 740 ft.; hole full.

## McCRACKEN COUNTY.

**Production:** Neither oil or gas to date. Producing sands; none recognized to date.

**Log No. 759**

Paducah Well. Lessor unknown. Lessee unknown. Location: Within the City of Paducah. Drilling completed in 1888. Production: Dry. Drilling samples collected by J. C. Farley and W. L. Bradshaw. Authority: R. H. Loughridge, Ass't Geologist, Jackson Purchase Report of Kentucky Geological Survey, Series II, p. 321-326, pub. 1888.

## Strata.

	Thickness	Depth
Quaternary System.		
Loam, brown, micaceous.....	40	40
Gravel, rounded chert and quartz .....	20	60
Tertiary System.		
Clay, black, and sand .....	90	150
Cretaceous System.		
Clay and sand, micaceous interlaminated ....	114	264
Chert, quart, and pyrite debris .....	71	335
Mississippian System.		
Limestone, shaly white, fossils, Chester Group	90	425
Limestone, dark, impure, cavernous, Chester Group .....	45	470
Limestone, silicious, cavernous, Chester Group	48	518
Shale, dark, limy, fossils, Chester Group .....	32	550
Shale, white, limy, fossils, Chester Group ....	185	735
Limestone, blue, Pentremital, Chester Group ..	400	1,135
Limestone, blue, fractured, loose sand, (St. Louis) .....	115	1,250
Total depth .....		1,250

NOTE—This record has been slightly revised from the original, chiefly to show the Tertiary representative which is regarded as present in this locality beneath the surface. Loughridge considered this record important as a proof of down throw faulting of 1,350 feet on the Kentucky side of the Ohio River as compared to the geologic section on the Illinois side of the Ohio River. This amount of faulting, though large, is indicated as altogether probable by recent detailed work done in Livingston, Crittenden and Caldwell Counties. In Livingston County the elongated areal outcrop of Pottsville sediments, extending in a northeast-southwest direction, is in reality a dropped fault block bordered on the northwest by a fault and on the southeast by another fault, each of which may be regarded as major faults of the region. In Livingston County the down throw attains a measured maximum of

—feet. This great fault block if it were to extend to the southwest as the two faults when last seen in Kentucky would indicate, would pass directly under the City of Paducah, though the thick recent deposits of unconsolidated sand, gravels and clays would obliterate any surface indication or proof of the great deformation below.

### McCREARY COUNTY.

**Production:** Oil and gas. Producing sand: "Beaver" (Mississippian).

#### Log No. 760

Rock Creek Property Co., No. 16, lessee. Completed: March 5, 1914. Production: First day, 5 bbls. Authority: New Domain Oil & Gas Co.

Strata.		
Pennsylvanian System.		
	Thickness	Depth
Shale, soft .....	15	15
Sandstone, yellow .....	105	120
Shale, blue, soft .....	180	300
Shale, red, sandy .....	50	350
Shale, blue, soft .....	114	464
Mississippian System.		
Limestone, variable in color .....	586	1,050
Shale, hard, blue, white .....	78	1,128
Limestone "sand" (Beaver), white .....	14	1,142
Shale, hard, blue (New Providence) .....	6	1,148
Total depth .....		1,148

#### Log No. 761

J. L. and J. A. Dobbs, No. 1, lessors. New Domain Oil & Gas Co., lessee. Completed: June 17, 1914. Production: After shot, 10 bbls. Authority: New Domain Oil & Gas Co.

Strata.		
Pennsylvanian System.		
	Thickness	Depth
Clay (soil) .....	11	11
Sandstone .....	90	101
Clay, blue, red .....	345	446
Mississippian System.		
Limestone, gray, white .....	630	1,076
Shale, hard .....	50	1,126
Limestone "sand" (Beaver), brown .....	19	1,145
Shale, hard, blue (New Providence) .....	11	1,156
Total depth .....		1,156

**Log No. 762**

J. L. and J. A. Dobbs, No. 2, lessors. New Domain Oil & Gas Co., lessee. Completed: July 10, 1914. Production: 5 bbls. Authority: New Domain Oil & Gas Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay .....	8	8
Sandstone, yellow .....	92	100
Shale, blue .....	150	250
Shale, red and blue .....	205	455

## Mississippian System.

Limestone, gray, white .....	405	860
Limestone, black .....	150	1,010
Shale, hard, mixed .....	120	1,130
Limestone "sand" (Beaver), brown .....	13	1,143
Shale, hard, blue (New Providence) .....	22	1,155
Total depth .....		1,155

**Log No. 763**

J. L. and J. A. Dobbs, No. 3, lessors. New Domain Oil & Gas Co., lessee. Completed: Dec. 12, 1914. Production: 15 bbls. Authority: New Domain Oil & Gas Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sandstone .....	125	125
Clay, shale, blue and red .....	355	480

## Mississippian System.

Limestone, gray and white .....	390	870
Limestone, black .....	175	1,045
Shale, hard, mixed .....	125	1,170
Limestone "sand" (Beaver) .....	12	1,182
Shale, hard, blue (New Providence) .....	10	1,192
Total depth .....		1,192

**Log No. 764**

Cephas Rice, No. 1, lessor. New Domain Oil & Gas Co., lessee.  
Completed: Oct. 8, 1915. Production: Dry. Authority: New Domain Oil & Gas Co.

Strata.

Pennsylvanian System.	Thickness	Depth
Clay .....	10	10
Sandstone .....	150	160
Shale .....	300	460
Mississippian System.		
Limestone, gray, white .....	390	850
Limestone, black .....	175	1,025
Shale, hard, mixed .....	103	1,128
Limestone "sand" (Beaver), brown .....	12	1,140
Shale, hard, blue (New Providence) .....	20	1,160
Total depth .....		1,160

**Log No. 765**

Ephram Phipps, No. 1, lessor. New Domain Oil & Gas Co., lessee.  
Completed: Dec. 9, 1919. Production: Dry. Well abandoned. Authority: New Domain Oil & Gas Co.

Strata.

Mississippian System.	Thickness	Depth
Clay .....	20	20
Limestone, white .....	380	400
Limestone, gray .....	50	450
Limestone, black .....	175	625
Limestone and flint, black .....	107	732
Limestone "sand" (Beaver), white .....	5	737
Shale, hard, blue (New Providence) .....	11	748
Total depth .....		748

**Log No. 766**

Hoffman Bros., No. 1, lessees. Location: South of Silerville P. O.  
Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	7	7
Sand .....	43	50
Shale, dark .....	28	78
Fire clay, sandy .....	4	82
Shale, sandy .....	25	107
Shale, dark .....	34	141
Fire clay, sandy .....	1 : 10	142 : 10

Pennsylvanian System.	Thickness	Depth
Sand .....	20	162 : 10
Shale, dark .....	26 : 2	189
Shale, black .....	25 : 9	214 : 9
Coal .....	0 : 3	215
Shale, dark, sandy .....	20 : 4	235 : 4
Sand .....	49 : 6	284 : 10
Shale, dark .....	0 : 8	285 : 6
Sand .....	23 : 6	309
Shale, dark .....	48	357
Sand .....	164 : 6	521 : 6
Coal .....	0 : 7	522 : 1
Fire clay, sandy .....	1 : 6	523 : 7
Shale, sandy .....	16 : 3	539 : 10
Shale, black .....	22	561 : 10
Fire clay, sandy .....	2 : 10	564 : 8
Shale, black .....	15 : 7	580 : 3
Coal .....	0 : 7	580 : 10
Shale, sandy .....	5 : 6	586 : 4
Sand .....	10	596 : 4
Shale, dark .....	33 : 2	629 : 6
Sand .....	8 : 10	638 : 4
Coal .....	0 : 2	638 : $\frac{1}{2}$
Sandy rock binder .....	0 : $3\frac{1}{2}$	638 : 4
Coal .....	0 : 10	639 : 2
Sand .....	25 : $2\frac{1}{2}$	664 : $4\frac{1}{2}$
Coal .....	0 : 5	664 : $9\frac{1}{2}$
Fire clay .....	4 : 6	669 : $3\frac{1}{2}$
Sand .....	10	679 : $3\frac{1}{2}$
Coal .....	0 : 2	679 : $5\frac{1}{2}$
Fire clay, sandy .....	3 : 9	683 : $2\frac{1}{2}$
Sand .....	12	695 : $2\frac{1}{2}$
Coal .....	0 : $\frac{1}{2}$	695 : 3
Shale, limy .....	3	698 : 3
Sand .....	11 : 6	709 : 9
Shale, sandy .....	4 : 8	714 : 5
Sand, dark, limy .....	0 : 10	715 : 3
Shale, limy .....	4 : $4\frac{1}{2}$	719 : $7\frac{1}{2}$
Shale, dark .....	37	756 : $7\frac{1}{2}$
Fire clay, sandy .....	4	760 : $7\frac{1}{2}$
Shale, light .....	3	763 : $7\frac{1}{2}$
Shale, gray .....	6	769 : $7\frac{1}{2}$
Fire clay .....	1 : 6	771 : $1\frac{1}{2}$
Sand rock .....	79 : 6	850 : $7\frac{1}{2}$
Mississippian System.		
Shale, green, Mauch Chunk .....	11	861 : $7\frac{1}{2}$
Shale, red, Mauch Chunk .....	16	877 : $7\frac{1}{2}$

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Mississippian System.	Thickness	Depth
Shale, gray, Mauch Chunk .....	2 : 11	880 : 6½
Limestone, gray, Mauch Chunk .....	1	881 : 6½
Total depth .....		881 : 6½





## CHAPTER VIII.

### McLEAN COUNTY.

Production: Oil and gas. Producing sands: "Beech Grove" and Sebree Sandstone (Alleghany-Pennsylvanian).

#### Log No. 767

J. L. Ford, No. 1, lessor. B. A. Kinney, Bradford, Pa., and Henry O'Hara, St. Louis, Mo., lessees. Location: Glennsville, 6 miles N. E. of Calhoun. Contractor: Clarence Shadwick, Owensboro, Ky. Authority: C. Shadwick and J. G. Stuart.

Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	2	2
Loess .....	20	22
Sandstone, brown, shale, laminated .....	5	27
Sandstone, brown, shale laminated .....	13	40
Clay, gray, shale, laminated soapstone .....	3	43
Shale, black .....	2	45
Coal .....	2	47
Shale (fire clay) .....	3	50
Clay, gray, shale, slaty .....	30	80
Limestone, clayey, blue, hard .....	9	89
Shale, blue .....	10	99
Shale, black .....	3	102
Blue clay limestone "Bastard" .....	25	127
Shale, dark blue, petroliferous, very plastic fat water copious sulphate of iron .....	10	137
Trace, pronounced, taste of oil in all 50' blue shale .....	20	157
Total depth .....		157

#### Log No. 768

J. L. Ford, No. 2, lessor. B. A. Kinney and Henry O'Hara, lessees. Location: 6 miles N. E. of Calhoun. Authority: C. Shadwick and J. G. Stuart.

Strata.

Pennsylvanian System.	Thickness	Depth
Shale and slate .....	5	5
Coal stain .....	0	5
Shale (fire clay), white .....	5	10
Unrecorded .....	156	166
Shale, black, slaty .....	19	185
Blue limestone shale .....	15	200
Shale, black, slaty .....	6	206

Pennsylvanian System.	Thickness	Depth
Coal stain .....	0	206
Shale (fire clay) .....	2	208
Limestone, gray, micaceous, coarse grained & porous, white grit, sandstone .....	36	244
Shale, black .....	20	264
White limestone "carbonate" .....	6	270
Limestone, white, clayey .....	9	279
Shale, black, slaty .....	6	285
Shale, black .....	12	297
Oil sand, coarse, grayish white .....	3	300
Sand, micaceous, fine grained, grayish white..	31	331
Total depth .....		331

### Log No. 769

McLean County (Poor Farm), lessor. Drayton Drilling Syndicate, Decatur, Ill., lessee. Location: Waters of Pond and Cypress Creeks. Commenced: Aug. 30, 1920. Completed: Aug. 7, 1921. Casing head elev.: 402 feet. Geologist in charge: Dr. C. N. Gould. Stratigraphic determinations made from the cuttings by J. L. Ferguson.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	25	25
Coal, No. 14, (according to Hutchison K. G. S.) —.....	5	30
Shale, shelly, very hard .....	10	40
Shale, gray .....	60	100
Shale, dark gray, sandy .....	30	130
Sandstone .....	35	165
Shale, dark gray, sandy .....	12	177
Coal .....	3	180
Shale, shelly .....	6	186
Shale, dark gray, sandy .....	44	230
Shale, shelly .....	10	240
Shale .....	20	260
Limestone, light gray .....	2	262
Shale .....	8	270
Shale, dark gray, sandy .....	25	295
Shale, dark gray, sandy .....	25	320
Shale, dark gray, sandy .....	10	330
Sandstone, fine, white, calcareous .....	30	360
Shale .....	30	390
Sandstone, gray, fine .....	5	395

Pennsylvanian System.	Thickness	Depth
Shale, gray, sandy .....	5	400
Shale .....	25	425
Shale, dark gray, sandy .....	45	470
Sandstone .....	10	480
Shale, dark gray, sandy .....	10	490
Sandstone, light gray .....	5	495
Shale, dark gray, sandy .....	65	560
Sandstone .....	5	565
Shale, dark gray, sandy .....	5	570
Shale, dark gray, sandy .....	10	580
Limestone, light gray, hard .....	10	590
Shale, dark gray, sandy .....	20	610
Shale .....	30	640
Sandstone, gray, coarse, calcareous .....	10	650
Limestone, gray, massive .....	5	655
Sandstone .....	5	660
Shale, dark gray, sandy .....	13	673
Sandstone, dark gray, shaly .....	16	689
Shale, dark gray, sandy .....	51	740
Shale, black .....	30	770
Limestone, white, massive .....	3	773
Coal .....	3	776
Shale, gray, sandy .....	16	792
Coal .....	7	799
Sandstone, water bearing .....	11	810
Sandstone, light gray, calcareous .....	10	820
Sandstone, light gray, medium grained .....	45	865
Shale, dark gray, sandy .....	5	870
Shale .....	20	890
Limestone .....	15	905
Shale, white .....	10	915
Shale, dark gray, sandy .....	60	975
Shale, black .....	15	990
Shale, white .....	5	995
Shale, dark gray, sandy .....	50	1,045
Shale, shelly .....	3	1,048
Sandstone, gray, fine grained, shaly .....	7	1,055
Shale, white .....	5	1,060
Shale, gray, sandy .....	45	1,105
Shale, shelly .....	5	1,110
Limestone, light gray, hard .....	10	1,120
Shale, gray, sandy .....	45	1,165
Sandstone, gray, fine grained .....	10	1,175
Shale, black .....	10	1,185
Sandstone, coarse, white, hard .....	48	1,233

Pennsylvanian System.	Thickness	Depth
Shale, gray, sandy .....	7	1,240
Sandstone, gray, fine grained, ferruginous ....	10	1,250
Shale, (coal streak at top) .....	46	1,296
Shale, green-gray, sandy .....	25	1,321
Sandstone, green-white, soft, fine grained ferruginous .....	19	1,340
Sandstone, yellow, soft, fine grained, fer- ruginous .....	10	1,350
Sandstone, yellow-white, fine, ferruginous, calcareous .....	35	1,385
Shale, dark gray, hard, sandy .....	15	1,400
Sandstone, yellow-white, fine, ferruginous ....	25	1,425
Shale, dark gray, sandy .....	25	1,450
Shale, green-gray, very sandy .....	20	1,470
Sandstone, yellow-white, fine, ferruginous ....	5	1,475
Shale, gray, medium grained, very sandy ....	21	1,496
Sandstone .....	4	1,500
Shale .....	40	1,540
Sandstone, light gray, fairly hard .....	6	1,546
Shale (coal streak at top) .....	32	1,578
Shale, dark gray, hard, slightly sandy .....	18	1,596
Sandstone, dirty white, fairly hard .....	4	1,600
Shale, dark gray, hard, slightly sandy .....	25	1,625
Shale, gray, hard, sandy .....	20	1,645
Shale, light, and shells .....	20	1,665
Sandstone, light gray, fine, (water bearing) ..	10	1,675
Sandstone, white, soft, fine .....	23	1,698
Mississippian System.		
Limestone .....	16	1,714
Shale, blue-gray, soft, sandy, ferruginous, very calcareous .....	4	1,718
Limestone, dirty white, hard, ferruginous ....	22	1,740
Shale, dark gray, fairly hard, ferruginous, calcareous ..	15	1,755
Limestone .....	11	1,766
Sandstone .....	5	1,771
Sandstone, dirty white, fine grained, hard, ferruginous, calcareous .....	19	1,790
Sandstone, gray, fine grained, hard, ferrugi- nous, calcareous .....	5	1,795
Shale, dark gray, sandy, non-calcareous .....	5	1,800
Limestone .....	27	1,827
Sandstone, dirty white, friable, medium grained, calcareous .....	33	1,860
Sandstone, white, fine grained, ferruginous ..	25	1,885

Mississippian System.	Thickness	Depth
Limestone, dirty gray, hard, ferruginous ....	37	1,922
Shale, reddish gray, brittle, sandy, non-calcareous .....	8	1,930
Limestone .....	56	1,986
Shale, dark gray, sandy, non-calcareous .....	24	2,010
Limestone, dark, greenish gray, very calcareous .....	44	2,054
Shale, dark red and green, very soft, calcareous, ferruginous, pyritic, shell frags....	4	2,058
Limestone .....	28	2,086
Shale, dark gray, soft, pyritic, non-calcareous	21	2,105
Limestone .....	55	2,160
Shale, dark gray, non-calcareous .....	50	2,210
Shale, dark gray, and limestone, dirty, white (Goleonda) .....	160	2,370
Limestone, broken .....	25	2,395
Shale .....	23	2,418
Sandstone, dirty white, fine grained, friable, ferruginous, micaceous, non-calcareous..	5	2,423
Total depth .....		2,423

## Log No. 770

John Smith, No. 1, lessor. Location: 4 miles northwest of Calhoun and 4 miles southwest of Glennville. Contractor, G. G. Billman. Authority: J. G. Stuart.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay, gravel and silt loam .....	39	39
Sandstone .....	4	43
Shale, gray, soft .....	15	58
Limestone, blue, very hard .....	4	62
Shale, blue, dries out .....	30	92
Shale, black .....	13	105
Limestone, white, (clay?) .....	2	107
Shale, blue, dries gray-white .....	40	147
Limestone, finity .....	2	149
Sandstone, brown, greasy and oily, brown flakes like rust floating .....	5	154
Sandstone, white, water copious, shale with partings .....	18	172
Oil sand, gas pronounced, good showing of oil, 21 ft. of oil sand, depth 175, Sea Level		

Pennsylvanian System.		Thickness	Depth
400, stopped on account of water over casing head, oil show in the water .....			
		3	175
Sand, white, 51 ft. sand in all .....		25	200
Shale, soft, clay .....		3	203
Sand and limestone .....		12	215
Limestone, broken, shale .....		16	231
Limestone, gray, solid .....		15	246
Shale, black .....		3	249
Coal trace .....		0	249
Limestone .....		1	250
Total depth .....			250

NOTE—The drillers of this well were inexperienced, and probably by poor methods lost a good pay.

#### Log No. 771

Bess Oil & Gas Co., lessee. Location: At Beech Grove P. O. Production: Oil at 136 feet in depth. Authority: Kenney Bryce, Owensboro, Ky.

##### Strata.

Pennsylvanian System.		Thickness	Depth
Soils, etc .....		56	56
Quicksand .....		80	136
Sandstone, (pay) (excellent) .....		4	140
Total depth .....			140

NOTE—Wells Nos. 2 and 3 show same formation.

#### Log No. 772

Louis Iglehart, No. 1, lessor. McDoe Oil & Gas Co., lessee. Location: 14 miles southwest of Owensboro, Ky. Production: Heavy grade black oil.

##### Strata.

Pennsylvanian System.		Thickness	Depth
Sandstone and shale .....		200	200
Sandstone, (pay) .....		40	240
Total depth .....			240

NOTE—Wells Nos. 2 and 3 similar in their records.

**MENIFEE COUNTY.**

**Production: Oil and Gas. Producing sand: Corniferous (Devonian) limestone.**

**Log No. 773**

John Fox, No. 1, lessor. Commenced: Mar. 30, 1920. Completed: April 15, 1920. Production: 40 bbls. oil after shot. Contractor, L. C. Imgrens. Driller, Tom Ingrens.

Strata.

Pennsylvanian System.	Thickness	Depth
Soil and shale .....	169	169
Sandstone .....	150	319
Mississippian System.		
Shale, green .....	55	374
Limestone (Big Lime) .....	55	429
Shale, soft .....	50	479
Sandstone .....	150	629
Shale, green, sandy .....	365	994
Devonian System.		
Shale, brown (Chattanooga) .....	185	1,179
Shale (fire clay) .....	12	1,191
Limestone (Ragland "sand") .....	3	1,194
Total depth .....		1,194

**Log No. 774**

Wells' Heirs, No. 1, lessor. Commenced: Mar. 24, 1920. Completed: Apr. 14, 1920. Production: 10 bbls. oil natural. Contractor, R. A. Lyons. Driller, Louis Cupper.

Strata.

Pennsylvanian System.	Thickness	Depth
Soil and shale .....	85	85
Sand .....	150	235
Mississippian System.		
Shale, green .....	60	295
Limestone (Big Lime) .....	50	345
Shale, soft (soapstone) .....	50	395
Freestone .....	150	545
Shale, green, sandy .....	365	910
Devonian System.		
Shale, brown (Chattanooga) .....	185	1,095
Shale (fire clay) .....	15	1,110
Limestone "sand" (Irvine), (oil) .....	1	1,111
Limestone .....	10	1,121
Total depth ....		1,121



## Log No. 775

Dorsey Ratliff, No. 3, lessor. Contractors: Meniffee Drilling Co.  
81/4 inch Drive pipe at 14 feet. 6-5/8 inch National Casing at 327  
feet. Authority: L. Beckner.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	5	5
Sandstone .....	60	65
Coal bloom and sandstone, broken .....	75	140
Shale, soft, blue .....	20	160
Sandstone .....	40	200
Coal bloom .....	20	220
Coal .....	5	225
Sandstone (Pottsville) .....	25	250

## Mississippian System.

Limestone .....	30	280
Shale, blue .....	10	290
Limestone, white, hard, (water) .....	35	325
Shale, blue .....	65	390
Sandstone .....	60	450
Rock, chalk .....	40	490
Sandstone, free .....	40	530
Shale, sandy, soft .....	230	760
Shale, shelly .....	15	775
Sandstone, hard .....	110	885

## Devonian System.

Shale, black .....	195	1,080
Shale (fire clay) .....	15	1,095
Limestone "sand" (Corniferous), (oil) .....	14	1,109
Total depth .....		1,109

## Log No. 776

W. C. Taylor, No. 1, lessor. New Domain Oil & Gas Co., lessee.  
Completed: Oct. 1, 1904. Production: Dry. Authority: New Do-  
main Oil & Gas Co.

## Strata.

Mississippian System.	Thickness	Depth
Soil, dark, soft .....	5	5
Shale, blue, soft .....	8	14

Mississippian System.		Thickness	Depth
Shale, blue, soft, and sandstone, blue, hard ..		434	448
Shale, hard, light, soft .....		90	538
Limestone, gray, hard .....		5	543
Devonian System.			
Shale, black, firm (Chattanooga) .....		170	713
Shale, white, soft .....		12	725
Limestone (Corniferous) .....		20	745
Shale, blue, soft .....		4	749
Limestone, gray, hard .....		5	754
Limestone, light, hard .....		10	764
Silurian System.			
Shale, red and green, soft .....		158	922
Limestone, gray, hard .....		1	923
Shale, light, soft, and limestone, gray, hard ..		80	1,003
Total depth .....			1,003

**Log No. 777**

A. C. Skidmore, No. 1, lessor. Completed: Oct. 8, 1904. Production: 1,200,000 cu. ft. gas. Authority: New Domain Oil & Gas Co.

## Strata.

Mississippian System.		Thickness	Depth
Soil, brown, soft .....		5	5
Sandstone, blue, hard, and shale, hard, blue, soft .....		240	245
Sandstone, gray, hard .....		9	254
Shale, hard, blue, soft .....		46	300
Sandstone, gray, hard .....		5	305
Shale, hard, blue, soft .....		15	320
Shale, hard, pink, soft .....		5	325
Shale, hard, blue, soft .....		41	366
Sandstone, blue, hard .....		4	370
Shale, hard, blue, soft .....		10	380
Devonian System.			
Shale, black, hard, Chattanooga .....		23	403
Shale, brown, soft, Chattanooga .....		12	415
Shale, black, hard and soft, Chattanooga ....		20	435
Shale, black, hard, Chattanooga .....		22	457

Devonian System.	Thickness	Depth
Shale, brown, soft, Chattanooga .....	23	480
Shale, black, hard, Chattanooga .....	30	510
Shale, brown blue, soft Chattanooga.....	18	528
Limestone (Corniferous) (gas) .....	43	571
Silurian System.		
Shale, blue, soft .....	3	574
Total depth .....		574

**Log No. 778**

G. W. Pitts, No. 1, lessor. Completed: March 14, 1905. Production: Dry. Pocket of gas at 315 feet; salt water at 511 feet. Authority: New Domain Oil & Gas Co.

## Strata.

Mississippian System.	Thickness	Depth
Soil and gravel, yellow and loose .....	10	10
Sandstone, light, medium .....	33	43
Shale, light, medium .....	66	109
Limestone, gray, medium .....	8	117
Shale, blue, soft .....	13	130
Sandstone, light, hard .....	9	139
Shale, light, soft .....	25	164
Limestone, blue, hard .....	56	220
Shale, blue, soft .....	5	225
Limestone, blue, hard .....	38	263
Shale, blue, soft .....	27	290
Shale (red rock), hard .....	8	298
Shale, light, soft .....	40	338
Devonian System.		
Shale, black medium (Chattanooga) .....	159	497
Shale (fire clay), white, soft .....	8	505
Limestone, hard (gas) .....	84	589
Shale, blue, medium .....	8	597
Total depth .....		597

NOTE—The Devonian-Silurian contact is probably about midway within the 84 feet of limestone above 589 feet.

**Log No. 779**

J. B. Phillips, No. 1, lessor. Completed: April 15, 1905. Production: Gas. Well was tubed and packed. Authority: New Domain Oil & Gas Co.

## Strata.

Mississippian System.	Thickness	Depth
Soil and gravel, soft .....	6	6
Shale, blue, soft .....	10	16
Sandstone, blue, hard .....	15	31
Shale, blue, soft .....	9	40
Sandstone, blue, hard .....	27	67
Limestone, light, hard .....	30	97
Shale, blue, soft .....	8	105
Limestone, light, hard .....	8	113
Sandstone, blue, hard, firm .....	59	172
Shale, blue, soft .....	48	220
Limestone, light, hard .....	20	240
Shale, blue, soft, limestone, blue, hard .....	90	330
Devonian System.		
Shale, black, soft (Chattanooga) .....	146	476
Shale (fire clay), blue, hard .....	9	485
Limestone "sand," gray, soft and hard (gas) .....	23	508
Shale, blue, soft .....	1	509
Total depth .....		509

**Log No. 780**

Jefferson Brewer No. 1, lessor. Completed: April 29, 1905. Production: A little gas at 803 feet. Authority: New Domain Oil & Gas Co.

## Strata.

Mississippian System.	Thickness	Depth
Soil and gravel, yellow, soft .....	19	19
Limestone, red, hard .....	4	23
Limestone, white, hard .....	8	31
Shale, blue, soft .....	1	32
Limestone, gray, hard .....	13	45
Flint, brown, hard .....	18	63
Limestone, white, hard .....	27	90
Shale, blue, soft .....	2	92
Limestone, white, hard .....	2	94
Shale, blue, red, soft .....	42	136

Mississippian System.	Thickness	Depth
Sandstone, blue, firm, hard .....	284	420
Limestone, yellow, hard .....	2	422
Sandstone, blue, soft, hard .....	195	617
Limestone, blue, hard .....	5	622
Shale, blue, soft .....	7	629
Limestone, blue, hard .....	5	634

## Devonian System.

Shale, black, soft (Chattanooga) .....	154	788
Shale (fire clay), blue, soft .....	14	802
Limestone, "sand," brown, medium, (gas) ..	26	828
Shale, blue, soft .....	1	829
Total depth .....		829

## Log No. 781

J. J. Dennis, No. 1, lessor. Completed: May 11, 1905. Production: The well was dry. Authority: New Domain Oil & Gas Co.

## Strata.

Mississippian System.	Thickness	Depth
Gravel, yellow, coarse .....	5	5
Sandstone, blue, hard, soft .....	233	238
Shale, blue, soft .....	16	254
Sandstone, blue, hard .....	1	255
Shale, blue, soft .....	84	339
Sandstone, blue, firm .....	14	353
Shale, blue, soft .....	66	419
Limestone, gray, hard .....	2	421
Shale, blue, soft .....	10	431

## Devonian System.

Shale, black (Chattanooga) .....	170	601
Limestone "sand," blue, (gas) .....	26	627
Shale, blue, hard .....	10	637
Total depth .....		637

**Log No. 782**

E. M. Yocum, No. 1 lessor. Completed: Sept. 30, 1919. Production: The well was dry; was plugged and abandoned. Authority: New Domain Oil & Gas Co.

## Strata.

Pennsylvanian System.		Thickness	Depth
Clay, black .....		170	170
Sandstone, yellow .....		80	250
Shale .....		80	330
Mississippian System.			
Limestone .....		20	350
Shale .....		20	370
Limestone .....		60	430
Shale, blue .....		50	480
Shale, white .....		500	980
Devonian System.			
Shale, black (Chattanooga) .....		200	1,180
Shale (fire clay) .....		20	1,200
Limestone "sand" .....		75	1,275
Limestone, white .....		20	1,295
Shale, hard, blue .....		121½	1,307½
Total depth .....			1,307½

NOTE—The Devonian-Silurian contact is within the lower half of the 75 feet of limestone above 1275 feet.

**Log No. 783**

George Downing, No. 2, lessor. Completed: Sept. 2, 1919. Production: Dry. Casing pulled and well abandoned. Authority: New Domain Oil & Gas Co.

## Strata.

Pennsylvanian System.		Thickness	Depth
Clay, red .....		6	6
Shale, black .....		139	145
Sandstone, white .....		90	235
Shale, dark .....		70	305
Mississippian System.			
Limestone, white .....		18	323
Shale, dark .....		18	341
Limestone, white .....		60	401

Mississippian System.	Thickness	Depth
Sandstone, light, shaly .....	164	565
Shale, blue, sandy .....	270	835
Limestone .....	43	878
Shale (soapstone), blue .....	92	970
Devonian System.		
Shale, black, Chattanooga .....	20	990
Shale brown, Chattanooga .....	15	1,005
Shale, black, Chattanooga .....	158	1,163
Shale, (fire clay), white .....	8	1,171
Shale, black, hard .....	5	1,176
Limestone "sand," blue .....	34	1,210
Limestone, white .....	20	1,230
Total depth .....		1,230

### Log No. 781

George B. Downing, No. 3, lessor. Completed: Sept. 19, 1919.  
 Production: The well was dry; plugged and abandoned. Authority:  
 New Domain Oil & Gas Co.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Clay .....	5	5
Sandstone, white .....	10	15
Shale, blue .....	55	70
Sandstone, white .....	85	155
Shale, blue .....	71	226
Mississippian System.		
Limestone, gray .....	10	236
Shale, blue .....	25	261
Limestone, gray .....	57	318
Sandstone, blue, shaly .....	15	333
Sandstone, blue, shaly .....	412	745
Sandstone, blue, shaly .....	140	885
Shale, black .....	20	905
Shale, brown .....	20	925
Devonian System.		
Shale, black (Chattanooga) .....	149	1,074
Shale (fire clay), white .....	15	1,089
Shale, black .....	2½	1,091½
Limestone "sand," gray, (oil) .....	40	1,131½

## Silurian System.

	Thickness	Depth
Limestone, white .....	30	1,161 $\frac{1}{2}$
Shale, hard, gray .....	6	1,167 $\frac{1}{2}$
Total depth .....		1,167 $\frac{1}{2}$

## Log No. 785

H. F. Osborn, No. 1, lessor. Location:———— Commenced: Dec. 1, 1919. Completed: Dec. 15, 1919. Shot Dec. 18, 1919, between 1,165 and 1,175 feet. Production: 48 hours after shot, 12 bbls. Authority: Ohio Oil Co.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Soil, red .....	120	120
Sandstone, red, medium .....	80	200
Shale, blue, soft .....	40	240
Sandstone, red, medium .....	80	320

## Mississippian System.

Limestone, hard, white, Big Lime .....	40	360
Limestone, hard, blue, Big Lime .....	40	400
Sandstone, hard, dark, (little gas) .....	200	600
Shale, hard, and limestone shells .....	325	925

## Devonian System.

Shale, brown, soft, Chattanooga .....	200	1,125
Shale (fire clay), light, soft, Chattanooga....	30	1,155
Shale, black, soft, Chattanooga .....	8	1,163
Limestone (cap rock), hard, black .....	1	1,164
Limestone "sand," dark, soft .....	14	1,178
Total depth .....		1,178

## Log No. 786

H. F. Osborn, No. 2, lessor. Location:———— Commenced: Feb. 6, 1920. Completed: Feb. 19, 1920. Shot Feb. 22, 1920, between 1,141 and 1,152 feet. Production: First 24 hours after shot, 115 bbls. Authority: The Ohio Oil Co.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Clay, soft .....	8	8
Shale, blue, soft .....	20	28
Shale, white, soft .....	42	70



Pennsylvanian System.	Thickness	Depth
Sandstone, gray .....	35	105
Shale, hard, white .....	15	120
Sandstone, gray .....	75	195
Shale, blue, soft .....	75	270
Mississippian System.		
Limestone, hard, white, Little and Big Lime..	15	285
Limestone, shaly, blue, soft, Little and Big Lime .....	35	320
Limestone, hard, blue, Little and Big Lime ..	54	374
Shale, red, soft .....	3	377
Shale, green, soft .....	13	390
Sandstone, light, soft .....	175	565
Sandstone, light .....	160	725
Soapstone, blue, soft .....	180	905
Limestone, hard, blue .....	3	908
Sandstone, light, soft .....	22	930
Devonian System.		
Shale, black, medium, Chattanooga .....	25	955
Shale, hard, white, soft, Chattanooga .....	15	970
Shale, brown, soft, Chattanooga .....	153	1,123
Fire clay, white, soft, Chattanooga .....	15	1,138
Shale, black, hard, Chattanooga .....	3	1,141
Limestone "sand," hard, brown .....	12 1/2	1,153 1/2
Total depth .....		1,153 1/2

### Log No. 787

H. F. Osborn, No. 3, lessor. Location:—— Commenced: March 3, 1920. Completed: March 26, 1920. Shot March 26, 1920, between 1,160 and 1,170 feet. Production: 24 hours after shot, 100 bbls. black oil. Authority: The Ohio Oil Co.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Clay .....	5	5
Sandstone, gray, soft .....	10	15
Shale, gray, soft .....	50	65
Sandstone, yellow, soft .....	65	130
Shale, gray, soft .....	110	240

Mississippian System.			Thickness	Depth
Limestone, hard, white, Big Lime .....	15	255		
Shale, blue, soft, Big Lime .....	10	265		
Limestone, hard, blue, Big Lime .....	40	305		
Shale, (red rock), soft .....	5	310		
Shale, hard, gray .....	20	330		
Sandstone, blue, soft .....	530	860		
Devonian System.				
Shale, black, soft (Chattanooga) .....	182	1,042		
Shale (fire clay), white, soft .....	18	1,060		
Limestone "sand," brown, medium .....	12	1,072		
Total depth .....		1,072		

**Log No. 788**

H. F. Osborn, No. 4, lessor. Location:— Commenced: March 5, 1920. Completed: April 23, 1920. Commenced producing April 29, 1920. Production: 24 hours after shot, 50 bbls., green oil. Authority: The Ohio Oil Co.

## Strata.

Pennsylvanian System.			Thickness	Depth
Clay, soft .....	10	10		
Shale, hard, dark .....	45	55		
Sand, yellow, soft .....	15	70		
Shale, hard .....	15	85		
Shale, red, soft .....	10	95		
Shale, hard, and sand, soft .....	45	140		
Sand, hard, white .....	45	185		
Shale, hard .....	100	285		
Mississippian System.				
Shale (red rock), soft .....	10	295		
Shale, hard .....	17	312		
Limestone (Big Lime) .....	46	358		
Shale (red rock), soft .....	10	368		
Shale (Waverly), soft .....	540	908		
Devonian System.				
Shale, brown, soft (Chattanooga) .....	211	1,119		
Shale (fire clay) .....	15	1,134		
Limestone "sand" .....	13	1,147		
Total depth .....		1,147		

**Log No. 789**

H. F. Osborn, No. 5, lessor. Location:——— Commenced: May 3, 1920. Completed: May 17, 1920. Production: 48 hours after shot, 60 bbls., oil. Authority: The Ohio Oil Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay .....	10	10
Shale, hard, gray .....	70	80
Sandstone, gray .....	30	110
Shale, hard, white .....	16	126
Sandstone, brown, soft .....	75	201
Shale, blue, soft .....	80	281

## Mississippian System.

Shale (red rock), soft .....	10	291
Shale, light, soft .....	20	311
Limestone, hard, light .....	35	346
Shale, hard, blue .....	20	366
Limestone, hard, white .....	14	380
Shale, red, soft, sandy .....	13	393
Shale, light, soft .....	177	570
Sandstone, light, soft .....	60	630
Sandstone, light, soft .....	73	703

## Devonian System.

Shale, brown, soft (Chattanooga) .....	215	918
Shale (fire clay), white, soft .....	156	1,074
Limestone "sand," brown, medium .....	85	1,159
Total depth .....		1,159

**Log No. 790**

H. F. Osborn, No. 6, lessor. Location:——— Commenced: May 2, 1920. Completed: May 16, 1920. Production: 48 hours after shot, 25 bbls., oil. Authority: The Ohio Oil Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay, soft .....	8	8
Shale, blue, soft .....	40	48
Shale, white, soft .....	44	92
Sandstone, gray, soft .....	35	127
Shale, hard, white .....	20	147
Sandstone, gray, soft .....	80	227

Mississippian System.	Thickness	Depth
Shale, blue, soft .....	78	305
Limestone, hard, white .....	17	322
Shale, blue, soft .....	35	357
Limestone, gray, hard .....	60	417
Shale, red, soft, sandy .....	4	421
Shale, green, soft .....	13	434
Sandstone, light, soft, fine .....	175	609
Sandstone, light, fine .....	60	669
Shale, hard, gray .....	281	950
Devonian System.		
Shale, black, soft (Chattanooga) .....	181 $\frac{1}{2}$	1,131 $\frac{1}{2}$
Shale (fire clay), white, soft .....	15	1,146 $\frac{1}{2}$
Limestone "sand," brown, medium .....	131 $\frac{1}{2}$	1,160
Total depth .....		1,160

**Log No. 791**

H. F. Osborn, No. 7, lessor. Location:—— Commenced: May 1, 1920. Completed: May 12, 1920. Production: 24 hours after shot, 50 bbls., oil. Authority: The Ohio Oil Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay, soft .....	10	10
Shale, hard, blue .....	90	100
Sandstone, gray, soft .....	30	130
Shale, hard, blue .....	10	140
Sandstone, gray, soft .....	60	200
Mississippian System.		
Shale, hard, blue .....	70	270
Limestone, hard, blue .....	35	305
Shale, hard, blue .....	6	311
Limestone, hard, blue .....	7	318
Shale (red rock), soft .....	11	329
Shale, gray, soft .....	175	504
Sandstone, light, soft, fine .....	135	639
Sandstone, light, soft, fine .....	250	889
Devonian System.		
Shale, brown, soft (Chattanooga) .....	180	1,069
Shale, (fire clay), light, soft .....	14	1,083
Limestone "sand," brown .....	12	1,095
Total depth .....		1,095

**Log No. 792**

H. F. Osborn, No. 8, lessor. Location:—— Commenced: May 26, 1920. Completed: June 7, 1920. Production: 48 hours after shot, 10 bbls., oil. Authority: The Ohio Oil Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay .....	10	10
Shale, hard, blue .....	93	103
Sand, white, soft .....	70	173
Shale, hard, dark .....	110	283

## Mississippian System.

Limestone, light .....	22	305
Shale, hard, blue .....	12	317
Limestone, hard, white .....	23	340
Shale, red, soft .....	10	350
Waverly Shale, light, soft .....	533	883

## Devonian System.

Shale, brown, soft (Chattanooga) .....	195	1,078
Shale (fire clay), white, soft .....	141 $\frac{1}{2}$	1,092 $\frac{1}{2}$
Limestone "sand," brown, hard .....	11	1,103 $\frac{1}{2}$
Total depth .....		1,103 $\frac{1}{2}$

**Log No. 793**

H. F. Osborn, No. 9, lessor. Location:—— Commenced: May 25, 1920. Completed: June 5, 1920. Production: 48 hours after shot, 10 bbls., oil. Authority: The Ohio Oil Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay, soft .....	10	10
Shale, hard, blue .....	60	70
Sand, white .....	65	135
Shale, hard, dark .....	115	250

## Mississippian System.

Limestone, light .....	20	270
Shale, hard, blue .....	10	280
Limestone, hard, white .....	25	305
Shale, red, soft .....	10	315
Shale (Waverly), light, soft .....	535	850

Devonian System.		Thickness	Depth
Shale, black (Chattanooga) .....	200	1,050	
Shale (fire clay), white, soft .....	14	1,064	
Limestone "sand," brown, hard .....	11	1,075	
Total depth .....		1,075	

**Log No. 794**

H. Osborn, No. 10, lessor. Location:—— Commenced: June 17, 1920. Completed: July 5, 1920. Shot July 5, 1920, between 1,217 and 1,227 feet. Authority: The Ohio Oil Co.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil .....	20	20	
Shale, hard, blue .....	185	205	
Sand, light, medium .....	55	260	
Shale, hard, light .....	95	355	

## Mississippian System.

Shale (red rock), soft .....	10	365	
Limestone, light .....	30	395	
Shale, hard, blue .....	10	405	
Limestone, hard, gray .....	50	455	
Shale (red rock) soft .....	10	465	
Shale (Waverly), light, soft .....	530	995	

## Devonian System.

Shale, brown- (Chattanooga) .....	205	1,200	
Shale (fire clay), light, soft .....	15	1,215	
Limestone "sand," brown .....	15	1,230	
Total depth .....		1,230	

**Log No. 795**

H. Osborn, No. 11, lessor. Location:—— Commenced: June 23, 1920. Completed: July 3, 1920. Shot July 4, 1920. Authority: The Ohio Oil Co.

## Strata.

Pennsylvanian System.		Thickness	Depth
Clay .....	14	14	
Shale, hard, blue .....	20	34	
Sand, light .....	56	90	
Shale, hard, light .....	90	180	

Mississippian System.	Thickness	Depth
Shale (red rock), soft .....	10	190
Limestone, light .....	30	220
Shale, hard, blue .....	10	230
Limestone, gray, hard .....	45	275
Shale (red rock), soft .....	8	283
Shale (Waverly), light, soft .....	539	822
Devonian System.		
Shale, brown (Chattanooga) .....	209	1,031
Shale (fire clay), light, soft .....	201½	1,051½
Limestone "sand," brown .....	111½	1,063
Total depth .....		1,063

### Log No. 796

John Beecraft, No. 1, lessor. Location: Near Rothwell. Completed: June 2, 1904. Production: The well was dry. Authority: New Domain Oil & Gas Co.

#### Strata.

Mississippian System.	Thickness	Depth
Clay, yellow, soft .....	7	7
Sandstone, dark, soft .....	23	30
Sandstone, dark, hard .....	2	32
Sandstone, dark, soft .....	1	33
Sandstone, dark, hard and soft .....	35	68
Shale, blue, soft .....	4	72
Sandstone, dark, hard .....	8	80
Sandstone, dark, soft .....	13	93
Shale, blue, soft .....	1	94
Sandstone, dark, hard .....	6	100
Shale, blue, hard .....	45	145
Sandstone, hard, dark .....	3	148
Shale, blue, soft .....	12	160
Sandstone, hard, dark .....	10	170
Shale, blue, soft .....	13	183
Sandstone, hard, dark .....	11	194
Shale, blue, hard .....	46	240
Shale, blue, soft .....	272	512
Limestone, gray, hard .....	2	514
Shale, blue, hard .....	6	520
Limestone, gray, very hard .....	2	522
Shale, blue, soft and hard .....	23	545

## Devonian System.

	Thickness	Depth
Shale, black, hard Chattanooga .....	98	643
Shale, brown, soft, Chattanooga .....	48	691
Shale, blue, soft, Chattanooga .....	9	700
Limestone, hard, dark (Corniferous) .....	36	736
Shale, blue, soft .....	5	741
Limestone, gray, hard .....	5	746

## Silurian System.

Shale, soft, blue and pink .....	111	857
Shale, light, soft .....	38	895
Limestone, gray, hard .....	8	903
Shale, light, soft .....	27	930
Limestone, gray, hard .....	20	950
Shale, blue, soft .....	40	990
Limestone, blue, soft .....	480	1,470
Limestone, white, soft .....	12	1,482
Limestone, gray, soft .....	33	1,515
Limestone, light, soft .....	10	1,525
Limestone, blue, soft .....	40	1,565
Limestone, gray, hard .....	165	1,730
Limestone, brown, hard .....	70	1,800
Total depth .....		1,800

NOTE—The Silurian-Ordovician contact is within the upper part of the 480 feet of limestone above 1,470 feet.

## Log No. 797

J. J. Chambers, No. 2, lessor. Completed: Sept. 15, 1904. Production: The well was dry. Authority: New Domain Oil & Gas Co.

## Strata.

## Mississippian System.

	Thickness	Depth
Clay, yellow, soft .....	7	7
Sandstone, blue, hard .....	113	120
Shale, blue, hard .....	180	300
Shale, blue, soft .....	153 1/2	453 1/2
Limestone, gray, hard .....	3 1/2	457

## Devonian System.

Shale, black, hard, (Chattanooga) .....	156	613
Shale, white, soft .....	8	621
Limestone "sand," dark, hard, open, (gas) ..	15	636
Limestone "sand," dark, close, (gas) .....	25	661



Silurian System.	Thickness	Depth
Limestone "sand," gray, close, (gas) .....	15	676
Limestone "sand," gray, hard, (salt water) ..	12	688
Limestone, gray, soft .....	7	695
Shale, blue, soft .....	13	708
Total depth .....		708

**Log No. 798**

John P. Crockett, No. 1, lessor. Location: Near Rothwell. Completed: July 29, 1904. Authority: New Domain Oil & Gas Co.

**Strata.**

Mississippian System.	Thickness	Depth
Clay yellow, soft .....	3	3
Sandstone, blue, hard .....	5	8
Shale, blue, soft .....	7	15
Sandstone, blue, hard .....	3	18
Shale, blue, soft .....	7	25
Sandstone, blue, hard .....	10	35
Shale, blue, soft .....	60	95
Sandstone, blue, hard .....	11	106
Shale, blue, soft .....	254	360
Limestone, gray, hard .....	2	362
Shale, blue, soft .....	53	415
Limestone, gray, hard .....	5	420

**Devonian System.**

Shale, black, hard, (Chattanooga) .....	159	579
Shale, blue, soft, (Chattanooga) .....	8	587
Limestone "sand," dark, hard, open, (gas) ..	16	603
Limestone "sand," light, hard, open, (gas) ..	15	618
Limestone "sand," light, hard, close, (gas) ..	24	642
Total depth .....		642

## Log No. 799

W. F. Fitzpatrick, No. 1, lessor. Completed: June 28, 1904.  
 Authority: New Domain Oil & Gas Co.

## Strata.

Mississippian System.	Thickness	Depth
Clay, yellow, soft .....	5	5
Shale, dark, soft .....	15	20
Sandstone, light, hard .....	10	30
Sandstone, dark, soft .....	10	40
Sandstone, dark, hard .....	10	50
Shale, dark, soft .....	120	170
Shale, dark, hard .....	10	180
Shale, dark, soft .....	137	317
Shale, light, hard .....	9	326

## Devonian System.

Shale, black, hard, (Chattanooga) .....	40	366
Shale, dark brown, soft, (Chattanooga) .....	102	468
Shale, blue, soft .....	5	473
Limestone "sand," dark, hard, open, (gas) ..	6	479
Limestone "sand," dark, soft, close, (gas) ..	4	483
Limestone "sand," light, soft, close, (gas) ..	8	491
Limestone "sand," dark, soft, close, (gas) ..	4	495
Limestone "sand," light, soft, (gas) .....	4	499
Shale, blue, soft .....	4	503
Total depth .....		503

## Skeleton "Sand" Records

These wells were drilled in the Alexander Pool on the waters of Meiers Creek, Menifee County, Ky. The elevations were run by Y-level, hand level, and barometer, by Louis Panyitti, Geologist for the Ohio Cities Gas Co., and W. S. Peek. The surficial rocks in this pool are Pennsylvanian in the hills and Mississippian in the bottoms.

G. H. Alexander, lessor. Location: 10 acre tract.

## Log No. 800

No. 1. (3)	Feet	
Elevation .....	1,173	A. T.
Cap .....	1,079	
Cap above tide .....	94	

**Log No. 801**

No. 2.	Feet
Elevation .....	1,220.78 A. T.
Cap .....	1,132
Cap above tide .....	89

**Log No. 802**

No. 3.	
Elevation .....	1,181.81 A. T.
Cap .....	1,092
Cap above tide .....	90

G. H. Alexander, lessor. 13 acre tract.

**Log No. 803**

No. 1. (1)	
Elevation .....	1,174.18 A. T.
Cap .....	1,076
Cap above tide .....	98

**Log No. 804**

No. 2. (2)	
Elevation .....	1,176.37 A. T.
Cap .....	1,079
Cap above tide .....	97

**Log No. 805**

No. 3	
Elevation .....	1,194.01 A. T.
Cap .....	1,098½
Cap above tide .....	96

**Log No. 806**

No. 4.	
Elevation .....	1,227.95 A. T.
Cap .....	1,132
Cap above tide .....	96

**Log No. 807**

No. 5.	Feet
Elevation .....	1,182.38 A. T.
Cap .....	1,084
Cap above tide .....	98

**Log No. 808**

No. 6.	
Elevation .....	1,187.15 A. T.
Cap .....	1,093
Cap above tide .....	94

G. H. Alexander, lessor, Big Side.

**Log No. 809**

No. 1. (4)	
Elevation .....	1,182.71 A. T.
Cap .....	1,101
Cap above tide .....	82

**Log No. 810**

No. 2.	
Elevation .....	1,187 A. T.
Cap .....	1,100
Cap above tide .....	87

**Log No. 811**

No. 3.	
Elevation .....	1,190 A. T.
Cap .....	1,102½
Cap above tide .....	88

**Log No. 812**

No. 4.	
Elevation .....	1,186.5 A. T.
Cap .....	1,112
Cap above tide .....	75

**Log No. 813**

No. 5.	Feet	
Elevation .....	1,105	A. T.
Cap .....	1,049	
Cap above tide .....	56	

Dorsey Ratliff, lessor.

**Log No. 814**

No. 1.		
Elevation .....	1,226.43	A. T.
Cap .....	1,117	
Cap above tide .....	109	

**Log No. 815**

No. 2.		
Elevation .....	1,199.32	A. T.
Cap .....	1,094	
Cap above tide .....	105	

**Log No. 816**

No. 3.		
Elevation .....	1,190.03	A. T.
Cap .....	1,093	
Cap above tide .....	97	

**Log No. 817**

No. 4.		
Elevation .....		
Cap .....	1,064	A. T.
Cap above tide .....		

**Log No. 818.**

No. 5.		
Elevation .....	1,246.83	A. T.
Cap .....	1,152	
Cap above tide .....	95	

**Log No. 819**

No. 6.	Feet	
Elevation .....		
Cap .....	1,083	A. T.
Cap above tide .....		

**Log No. 820**

No. 7.		
Elevation .....	1,193.39	A. T.
Cap .....	1,103	
Cap above tide .....	90	

**Log No. 821**

No. 8.		
Elevation .....	1,223.91	A. T.
Cap .....	1,133	
Cap above tide .....	91	

**Log No. 822**

No. 9.		
Elevation .....	1,239.78	A. T.
Cap .....	1,135	
Cap above tide .....	105	

**Log No. 823**

No. 10.		
Elevation .....	1,211.43	A. T.
Cap .....	1,113	
Cap above tide .....	98	

**Log No. 824**

No. 11.		
Elevation .....	1,232.51	A. T.
Cap .....	1,124	
Cap above tide .....	109	

**Log No. 825**

No. 12.	Feet	
Elevation .....		
Cap .....	1,089	A. T.
Cap above tide .....		

Dorsey Ratliff, lessor, (Hog Lot).

**Log No. 826**

No. 1.		
Elevation .....	1,185.69	A. T.
Cap .....	1,095	
Cap above tide .....	91	

Pete Brown.

**Log No. 827**

No. 1.		
Elevation .....	1,191.91	A. T.
Cap .....	1,089	
Cap above tide .....	103	

**Log No. 828**

No. 2.		
Elevation .....	1,198.06	A. T.
Cap .....	1,095	
Cap above tide .....	103	

**Log No. 829**

No. 3.		
Elevation .....	1,228.13	A. T.
Cap .....	1,131	
Cap above tide .....	97	

**Log No. 830**

No. 4.		
Elevation .....	1,233.37	A. T.
Cap .....	1,122	
Cap above tide .....	111	

**Log No. 831**

No. 5.	Feet
Elevation .....	1,307.60 A. T.
Cap .....	1,184
Cap above tide .....	124

**Log No. 832**

No. 6.	
Elevation .....	1,285.96 A. T.
Cap .....	1,172
Cap above tide .....	114

**Log No. 833**

No. 7.	
Elevation .....	
Cap .....	1,179 A. T.
Cap above tide .....	107 (?)

**Log No. 834**

No. 8.	
Elevation .....	1,246.81 A. T.
Cap .....	
Cap above tide .....	

**Log No. 835**

No. 9.	
Elevation .....	1,260.39 A. T.
Cap .....	
Cap above tide .....	

**Log No. 836**

No. 10.	
Elevation .....	1,251.03 A. T.
Cap .....	1,145
Cap above tide .....	106



**Log No. 837**

No. 11.	Feet
Elevation .....	1,275.71 A. T.
Cap .....	1,171
Cap above tide .....	105

**Log No. 838**

No. 12.	
Elevation .....	1,264.29 A. T.
Cap .....	1,157
Cap above tide .....	107

Tilford Back, lessor.

**Log No. 839**

No. 1.	
Elevation .....	1,195.07 A. T.
Cap .....	1,094
Cap above tide .....	102

**Log No. 840**

No. 2.	
Elevation .....	1,260.69 A. T.
Cap .....	1,155
Cap above tide .....	106

**Log No. 841**

No. 3.	
Elevation .....	1,205.07 A. T.
Cap .....	1,103
Cap above tide .....	102

**Log No. 842**

No. 4.	
Elevation .....	1,256.81 A. T.
Cap .....	1,143
Cap above tide .....	114

**Log No. 843**

No. 5.	Feet
Elevation .....	1,241.99 A. T.
Cap .....	1,145
Cap above tide .....	97

W. K. Wells, lessor, South Half.

**Log No. 844**

No. 1.	
Elevation .....	1,159.89 A. T.
Cap .....	1,071
Cap above tide .....	89

**Log No. 845**

No. 2.	
Elevation .....	1,183.89 A. T.
Cap .....	1,095
Cap above tide .....	89

**Log No. 846**

No. 3.	
Elevation .....	1,184.63 A. T.
Cap .....	1,098
Cap at tide .....	87

W. K. Wells, lessor, North Half.

**Log No. 847**

No. 1.	
Elevation .....	1,195.59 A. F.
Cap .....	1,103
Cap above tide .....	93

**Log No. 848**

No. 2.	
Elevation .....	1,226.56 A. T.
Cap .....	1,132
Cap above tide .....	95

George O. Downing, lessor.

**Log No. 849**

No. 1.	Feet	
Elevation .....	1,208	A. T.
Cap .....	1,119½	
Cap above tide .....	89	

**Log No. 850**

No. 2.		
Elevation .....	1,261	A. T.
Cap .....	1,176	
Cap above tide .....	85	

**Log No. 851**

No. 3.		
Elevation .....	1,176	A. T.
Cap .....	1,131	
Cap above tide .....	45	

Francis Bowhn, lessor.

**Log No. 852**

No. 1.		
Elevation .....	1,216.42	A. T.
Cap .....	1,123	
Cap above tide .....	93	

**Log No. 853**

No. 2.		
Elevation .....	1,245.45	A. T.
Cap .....	1,145	
Cap above tide .....	100	

**Log No. 854**

No. 3.		
Elevation .....	1,275.89	A. T.
Cap .....	1,173	
Cap above tide .....	103	

**Log No. 855**

John Fox, lessor.

No. 1.	Feet
Elevation .....	1,321.26 A. T.
Cap .....	1,196
Cap above tide .....	125

**Log No. 856**

No. 2.

Elevation .....	1,282.86 A. T.
Cap .....	1,153
Cap above tide .....	130

Martha Botts, lessor.

**Log No. 857**

No. 1.

Elevation .....	1,290.81 A. T.
Cap .....	1,193
Cap above tide .....	89

**Log No. 858**

No. 2.

Elevation .....	1,329.95 A. T.
Cap .....	1,217½
Cap above tide .....	112

H. F. Oshorn, lessor.

**Log No. 859**

No. 1.

Elevation .....	1,294 A. T.
Cap .....	1,163
Cap above tide .....	132

**Log No. 860**

No. 2.

Elevation .....	1,257.82 A. T.
Cap .....	1,141
Cap above tide .....	117

**Log No. 861**

No. 3.	Feet
Elevation .....	1,179.17 A. T.
Cap .....	1,060
Cap above tide .....	119

**Log No. 862**

No. 4.	
Elevation .....	1,254.17 A. T.
Cap .....	1,134
Cap above tide .....	120

**Log No. 863**

No. 5.	
Elevation .....	1,270.84 A. T.
Cap .....	1,148
Cap above tide .....	123

**Log No. 864**

No. 6.	
Elevation .....	1,269.18 A. T.
Cap .....	1,146½
Cap above tide .....	123

**Log No. 865**

No. 7.	
Elevation .....	1,206.35 A. T.
Cap .....	1,089
Cap above tide .....	117

**Log No. 866**

No. 8.	
Elevation .....	1,212.45 A. T.
Cap .....	1,092½
Cap above tide .....	120

**Log No. 867**

No. 9.	Feet
Elevation .....	1,177.28 A. T.
Cap .....	1,064
Cap above tide .....	113

**Log No. 868**

No. 10.	
Elevation .....	1,330 A. T.
Cap .....	1,215 $\frac{1}{2}$
Cap above tide .....	114

**Log No. 869**

No. 11.	
Elevation .....	1,160.28 A. T.
Cap .....	1,046.8 in.
Cap above tide .....	114
Cased at .....	280

**Log No. 870**

No. 12.	
Elevation .....	1,211.35 A. T.
Cap .....	1,100
Cap above tide .....	111

**Log No. 871**

No. 13.	
Elevation .....	1,229.82 A. T.
Cap .....	1,119
Cap above tide .....	111

**Log No. 872**

No. 14.	
Elevation .....	1,210 A. T.
Cap .....	1,108
Cap above tide .....	147
Cased at .....	340

**Log No. 873**

No. 15.	Feet	
Elevation .....	1,147	A. T.
Cap .....	1,038	
Cap above tide .....	109	

Martha Botts, lessor.

**Log No. 874**

No. 1.		
Elevation .....	1,290.81	A. T.
Cap .....	1,193	
Cap above tide .....	98	

**Log No. 875**

No. 2.		
Elevation .....	1,329.95	A. T.
Cap .....	1,217½	
Cap above tide .....	112	
Lock level from Pete Brown No. 3 to Martha Botts No. 2 109 ft. higher. (Pete Brown No. 3, 1,228.16.)		

Scott Ledford, lessor.

**Log No. 876**

No. 1.		
Elevation .....	1,166.01	A. T.
Cap .....	1,093	
Cap above tide .....	73	
Cased at .....	324	

Martin Ledford, lessor.

**Log No. 877**

No. 1.		
Elevation .....	1,190	A. T.
Cap .....	1,134	
Cap above tide .....	56	

G. W. Denniston Heirs, lessors.

**Log No. 878**

No. 1.		
Elevation .....	1,187.37	A. T.
Cap .....	1,109½	
Cap above tide .....	78	

**Log No. 879**

No. 2.	Feet	
Elevation .....	1,148 .98	A. T.
Cap .....	1,068	
Cap above tide .....	82	

Phil Denniston Heirs, lessors.

**Log No. 880**

No. 1.		
Elevation .....	1,206	A. T.
Cap .....	1,114	
Cap above tide .....	93	
Cased at .....	355	

W. J. Dennis, lessor.

**Log No. 881**

Elevation .....	1,110	A. T.
Cap .....	1,066	
Cap above tide .....	44	

Hattie Sallie, lessor.

**Log No. 882**

No. 1.		
Elevation .....	1,190 .54	A. T.
Cap .....	1,110	
Cap above tide .....	81	

W. E. Little, lessor.

**Log No. 883**

No. 1.		
Elevation .....	1,210 .84	A. T.
Cap .....	1,140	
Cap above tide .....	80	

L. N. Sexton, lessor.

**Log No. 884**

No. 1.		
Elevation .....	1,145 .02	A. T.
Cap .....	1,065	
Cap above tide .....	80	



William Trimble, lessor.

**Log No. 885**

No. 1.	Feet	
Elevation .....	1,202.51	A. T.
Cap .....	1,043	
Cap above tide .....	160	

Rebecca Dennis, lessor.

**Log No. 886**

No. 1.		
Elevation .....	1,242	A. T.
Cap .....	1,194	
Cap above tide .....	48	

E. M. Yokum, lessor.

**Log No. 887**

No. 1.		
Elevation .....	1,271	A. T.
Cap .....	1,203	
Cap above tide .....	68	

James Wilson, lessor.

**Log No. 888**

No. 1.		
Elevation .....		
Cap .....	1,080	A. T.
Cap above tide .....		

B. Swango, lessor.

**Log No. 889**

No. 1.		
Elevation .....	1,084	A. T.
Cap .....	1099	
Cap above tide .....	-15	

Jos. Collingsworth, lessor.

**Log No. 890**

No. 1.		
Elevation .....	1,153	A. T.
Cap .....		
Cap above tide .....		

J. C. Ledford, lessor.

**Log No. 891**

No. 1.	Feet	
Elevation .....	1,185.70	A. T.
Cap .....	1,032	
Cap above tide .....	154	

Thos. Greenwald, lessor.

**Log No. 892**

No. 1.		
Elevation .....	914	A. T.
Cap .....	626	
Cap above tide .....	288	

Lon Barker, lessor.

**Log No. 893**

No. 1.		
Elevation .....	954.87	A. T.
Cap .....	808	
Cap above tide .....	147	

William Baty, lessor.

**Log No. 894**

No. 1.		
Elevation .....	1,223	A. T.
Cap, tight .....	1,106	
Cap above tide .....	117	

Brooks Tract, lessor.

**Log No. 895**

No. 1.		
Elevation .....		
Cap .....	1,120	A. T.
Cap above tide .....		

Powers Heirs, lessors.

**Log No. 896**

No. 1.		
Elevation .....	1,270.84	A. T.
Cap .....	1,140	
Cap above tide .....	131	

**Log No. 897**

No. 2.	Feet	
Elevation .....	1,263.34	A. T.
Cap .....	1,142	
Cap above tide .....	121	

**Log No. 898**

No. 3.		
Elevation .....	1,190.35	A. T.
Cap .....	1,080	
Cap above tide .....	110	

**Log No. 899**

No. 4.		
Elevation .....	1,193.35	A. T.
Cap .....	1,082	
Cap above tide .....	111	

O. D. Barker, lessor.

**Log No. 900**

No. 1.		
Elevation .....	1,234	A. T.
Cap .....	1,120	
Cap above tide .....	114	

**Log No. 901**

No. 2.		
Elevation .....	1,215	A. T.
Cap .....	1,101	
Cap above tide .....	114	

Mart Barker, lessor.

**Log No. 902**

No. 1.		
Elevation .....	867.87	A. T.
Cap, .....	(722?) 702	
Cap above tide .....	(146?) 166	
Black Shale .....	502	

Oscar Motley, (J. R. Lyon), lessor.

**Log No. 903**

No. 1.	Feet	
Elevation .....	1,099	A. T.
Cap .....	1,134	
Cap above tide .....	—35	
Total depth .....	3,131	

W. M. Whitt, lessor.

**Log No. 904**

No. 1.		
Elevation .....	831	A. T.
Cap .....	786	
Cap above tide .....	45	

Jas. Collingsworth, lessor.

**Log No. 905**

Elevation .....	1,080	A. T.
Cap .....	1,153	
Cap above tide .....	73	

Jim Phelps, lessor.

**Log No. 906**

So. of E.		
Elevation .....	1,263	A. T.
Cap .....	1,090	
Cap above tide .....	173	

Beaty Heirs, lessors.

**Log No. 907**

No. 1.		
Elevation .....	1,145	A. T.
Cap .....	1,030	Dead Oil
Cap above tide .....	115	

Frank Lawson, lessor.

**Log No. 908**

No. 1.		
Elevation .....	882	A. T.
Cap .....	707	
Cap above tide ..	175	

J. T. Powers, lessor.

**Log No. 909**

No. 1.	Feet
Elevation .....	1,257.85 A. T.
Cap .....	1,149.50
Cap above tide .....	108

**Log No. 910**

No. 2.	
Elevation .....	1,241.65 A. T.
Cap .....	1,138½
Cap above tide .....	103

**Log No. 911**

No. 3.	Feet
Elevation .....	1,208.94 A. T.
Cap .....	1,108½ plus 8½
	No Water.
Cap above tide .....	100.4

**Log No. 912**

No. 4.	
Elevation .....	1,203.94 A. T.
Cap .....	1,103 plus 6½
	S. W. plus 2. plugged.
Cap above tide .....	100.94 to 6 ft.
	shot 20 qts. Salt
	water shut off and
	365 feet of oil.

Silas Montgomery, lessor.

**Log No. 913**

No. 1.	
Elevation .....	1,198.65 A. T.
Cap .....	1,093 plus 13½
Cap above tide .....	105.65

Wells Heirs, lessors.

**Log No. 914**

No. 1.	
Elevation .....	1,223.85 A. T.
Cap .....	1,110
Cap above tide .....	114
Prof Wells Heirs to J. T. Powers No. 1, 26 feet higher.	
(J. T. Powers No. 1 is 1,257.85.)	

## MONROE COUNTY.

Production: Oil and Gas. Producing "Sand": Sunnybrook (Ordovician).

## Log No. 915

Dux Oil Co. Location: About 6 miles west of Thompkinsville.  
Commenced: Oct. 31, 1919. Completed: Nov. 27, 1919. Authority:  
Dux Oil Co., through L. Beckner.

Strata.

	Thickness	Depth
Mississippian System.		
Soil .....	10	10
Limestone, flinty .....	70	80
Sand and limestone, grayish, (gas) .....	3	83
Limestone, dark gray and flinty .....	37	120
Limestone, blue .....	21	141
Limestone, white .....	3	144
Shale, hard, green, (sulphur gas) .....	5	149
Devonian System.		
Shale, black (Chattanooga) .....	25	174
Silurian System.		
Limestone, brown, sandy .....	15	189
Shale, hard, gray .....	5	194
Ordovician System.		
Limestone, light blue .....	50	244
Limestone, purplish .....	3	247
Limestone, brownish .....	5	252
Shale, greenish, hard .....	4	256
Limestone, gray .....	4	260
Limestone "sand," (oil) .....	21½	262½
Total depth .....		262½

## Log No. 915-A.

W. L. Douglas, No. 1, lessor. Location: Near Fountain Run, Monroe County, Ky. Commenced:— Completed:— (Partial Record).

Strata.

	Thickness	Depth.
Mississippian System.		
Shale and limestone .....	170	170
Devonian System.		
Shale, black (Chattanooga) .....	35	205
Limestone (Corniferous) .....	15	220
Silurian System.		
Limestone (Niagara) .....	30	250

Ordovician System.	Thickness	Depth
Limestone and shaly limestone (includes Trenton) .....	1,150	1,400
Limestone, dark, hard .....	47	1,447
Limestone, dark gray, Knoxville Dolomite ...	73	1,520
Limestone, dark, shaly, Knoxville Dolomite ..	60	1,580
Limestone, dark, compact .....	22	1,602
Incomplete depth (April 1, 1922) ....		1,602

NOTE—The Trenton and Calciferous is found within the lower half of the 1150 feet above 1447 feet in depth. The Knoxville Dolomite is regarded as the producing sand of the new Beech Bottom wells of Clinton County, Ky. These wells produced oil at a depth of 1365 feet below the black shale (Devonian).

## MORGAN COUNTY.

**Production: Oil and Gas.** Producing "Sands": Big Lime, Big Injun, Wier, Berea (Mississippian), Corniferous (Devonian).

### Log No. 916

E. H. Oldfield, No. 1, lessor. Location: At Mize P. O. Production: 2,000,000 cu. ft. gas.

Strata.

Pennsylvanian System.	Thickness	Depth
Shale and shells .....	100	100
Sand, white .....	215	315
Shale and shells .....	25	340
Mississippian System.		
Limestone (Little lime) .....	30	370
Shale (pencil cave) .....	22	392
Limestone (Big Lime) .....	110	502
Shale (Waverly) .....	575	1,077
Devonian System.		
Shale, black (Chattanooga) .....	204	1,281
Limestone "sand" (Irvine) .....	8	1,289
Total depth .....		1,289

### Log No. 917

Clearfield Lumber Co., lessor. Northwestern Oil Co., No. 1, lessee. Location: Head of Yocum Creek, near Blaze P. O. Completed: Feb. 6, 1920. Driller: Andrew Shearard. Authority: Sam Shearard, contractor.



THE "BIG LIME" OF EASTERN KENTUCKY

This is a characteristic, though not a complete exposure, of the sequence of Mississippian Limestones of Eastern Kentucky. View in the quarry at Limestone, Carter County, Kentucky.



Strata.		
Pennsylvanian System.		Thickness Depth
Soil .....	7	7
Gravel .....	6	13
Limestone, black .....	9	22
Shale, blue .....	5	27
Mississippian System.		
Limestone (Big Lime) .....	163	190
Shale, green .....	15	205
Shale, (red rock) .....	15	220
Shale, blue .....	305	525
Limestone, black .....	25	550
Limestone, white .....	115	665
Sandstone (Berea grit) .....	60	725
Shale, blue .....	20	745
Devonian System.		
Shale, black (Chattanooga) .....	195	940
Limestone, black (Chattanooga) .....	20	960
Shale, white (Chattanooga) .....	20	980
Shale, brown (Chattanooga) .....	20	1,000
Shale, white (Chattanooga) .....	40	1,040
Limestone "sand," (Corniferous) .....	10	1,050
White water sand (Corniferous) .....	5	1,055
Sand, hard, brown (Corniferous) .....	10	1,065
White water sand (Corniferous) .....	15	1,080
Total depth .....		1,080
20 feet 10 inch casing.		
95 feet 8 inch casing.		
520 feet 61 $\frac{1}{4}$ inch casing.		

### Log No. 918

J. T. Fugett, No. 1, lessor. Iron City Oil Co., No. 1, lessee. Location: Brushy Fork of Caney Creek. Completed: Oct. 21, 1917. Authority: L. Beckner.

Strata.		
Pennsylvanian System.		Thickness Depth
Drift .....	18	18
Shells, lime .....	42	60
Shale, hard .....	290	350
Sand .....	85	435
Shale, hard, sandy .....	40	475
Sand .....	140	615
Shale, hard .....	60	675
Sand .....	65	740

Mississippian System.		Thickness	Depth
Shale, hard .....		10	750
Limestone (Little Lime) .....		5	755
Shale, hard .....		5	760
Limestone (Big Lime) .....		105	865
Shale (Waverly) .....		485	1,350
Sandstone (Berea) .....		40	1,390
Limestone, sandy .....		50	1,440
Devonian System.			
Shale, brown (Chattanooga) .....		319	1,759
Shale, hard, white .....		30	1,789
Limestone "sand," (oil & gas shows) .....		22	1,811
Total depth .....			1,811
A little gas at 1 foot in sand.			
A show of oil at 4 feet in sand.			
Second show of oil at 12 feet in sand.			
Size of hole at mouth was 10 inches, and at bottom 6-5/8 inches.			

**Log No. 919**

A. J. Linden, No. 1, lessor. Location: About 3 miles east of Adele, Ky. Commenced: July 15, 1917. Completed: Aug. 31, 1917. Production: Dry. Authority: The Eastern Gulf Oil Co.

## Strata.

Pennsylvanian System.		Thickness	Depth
Drift .....		10	10
Shale, hard, shelly .....		30	40
Lime, shell .....		35	75
Shale, hard, (coal at 175) .....		100	175
Sand .....		25	200
Shale, hard .....		100	300
Sand .....		15	315
Shale, hard .....		35	350
Sand .....		5	355
Shale, hard .....		5	360
Sand .....		110	470
Shale, hard .....		105	575
Lime shells .....		20	595
Sand .....		75	670
Shale, hard .....		60	730
Sand .....		33	763
Mississippian System.			
Limestone (Little Lime) .....		5	768
Shale, hard .....		10	778
Limestone (Big Lime) .....		114	892

	Thickness	Depth
Mississippian System.		
Shale (Waverly) .....	434	1,326
Shale, black (Sunbury) .....	5	1,331
Sandstone (Berea) .....	20	1,351
Shale, hard, white .....	25	1,376
Devonian System.		
Shale, brown (Chattanooga) .....	319	1,695
Shale, hard, white .....	30	1,725
Limestone .....	54	1,779
Total depth .....		1,779

### Log No. 920

V. P. Haney, No. 1, lessor. Location: Upper Tract No. 2. Commenced: July 28, 1913. Completed: Aug. 18, 1913. Drillers: Harry Creel, Grover Barnes and W. R. Forman. Authority: L. Beckner.

Strata.

	Thickness	Depth
Pennsylvanian System.		
Soil .....	9	9
Coal, bituminous and shale .....	266	275
Sand .....	45	320
Sand, soft .....	217	530
Sand, black .....	200	730
Sand, settling .....	45	775
Mississippian System.		
Limestone (Little Lime) .....	105	880
Limestone (Big Lime) .....	20	900
Shale (Waverly) .....	185	1,085
Shale .....	419	1,504
Sandstone (Berea) .....	16	1,520
Shale, hard .....	24	1,544
Devonian System.		
Shale, black (Chattanooga) .....	36	1,580
Shale (Chattanooga) .....	248	1,828
Limestone "sand" .....	31'8"	1,859'8"
Limestone "sand" .....	20'4"	1,880
Total depth .....		1,880
First pay at 31 $\frac{1}{4}$ feet in sand and runs to 13 feet.		

### Log No. 921

V. P. Haney, No. 3, lessor. Location: Upper Tract. Commenced: Oct. 14, 1913. Completed: Nov. 12, 1913. Drillers: J. Dennis, H. R. Newland, G. Barnes and W. R. Forman. Authority: L. Beckner.

Strata.		
Pennsylvanian System.		
	Thickness	Depth
Sandstone, shale and cannel coal .....	470	470
Sand .....	152	622
Sand, settling .....	98	720
Mississippian System.		
Limestone (Little Lime) .....	100	820
Shale, hard .....	8	828
Limestone (Big Lime) .....	179	1,007
Shale (Waverly) .....	458	1,465
Sandstone (Berea) .....	15	1,480
Shale, hard .....	35	1,515
Devonian System.		
Shale, black (Chattanooga) .....	255	1,770
Shale .....	40	1,810
Limestone "sand" .....	21	1,831
Total depth .....		1,831
Pay from 1,812 to 1,823½ feet.		

## Log No. 922

Mason Jones, No. 1, lessor. Location: Cannel City. Commenced:  
May 2, 1913. Completed: June 3, 1913. Authority: L. Beckner.

Strata.		
Pennsylvanian System.		
	Thickness	Depth
Soil .....	12	12
Shale and sandstone .....	117	129
Cannel coal .....	6	135
Shells and shale, hard .....	265	400
Sand .....	200	600
Shale, hard .....	50	650
Sand .....	100	750
Mississippian System.		
Limestone (Little Lime) .....	10	760
Shale .....	5	765
Limestone (Big Lime) .....	185	950
Shale (Waverly) .....	440	1,390
Sandstone (Berea) .....	25	1,415
Shale, hard .....	50	1,465
Devonian System.		
Shale, hard, black (Chattanooga) .....	251	1,716
Shale .....	30	1,746
Limestone "sand" .....	16½	1,762½
Total depth .....		1,762½
No pay until 7 feet below cap.		

**Log No. 923**

Jim Little, No. 1, lessor. Mullins & Mullins Oil & Gas Co., lessee. Location: Near Mize P. O., about 200 yards above post office on Murphy Fork of Grassy Creek. Commenced: July 10, 1917. Completed: Aug. 9, 1917. Initial production: 900,000 cu. ft. gas. Authority: C. E. Bales.

## Strata.

	Thickness	Depth
Pennsylvanian System.		
Soil .....	6	6
Shale and shells .....	94	100
Sandstone, white .....	210	310
Shale .....	50	360
Mississippian System.		
Limestone (Little Lime) .....	20	380
Limestone (Big Lime) .....	120	500
Shale (Waverly) .....	540	1,040
Devonian System.		
Shale, brown (Chattanooga) .....	200	1,240
Shale, white (Chattanooga) .....	20	1,260
Shale, brown (Chattanooga) .....	21	1,281
Limestone "sand," (gas) .....	11	1,292
Total depth .....		1,292

**Log No. 924**

Jim Little, No. 2, lessor. Location: 1 mile southwest of Mize P. O. Authority: L. V. Mullen.

## Strata.

Pennsylvanian, Mississippian and Devonian Systems.	Thickness	Depth
Sandstone, limestone and shale .....	1,034	1,034
Limestone "sand" (Corniferous) .....	32	1,066
Silurian and Ordovician Systems.		
Limestone (gas at 1,306) .....	240	1,306
Total depth .....		1,306

**Log No. 925**

Clay Murphy, No. 1, lessor. Forman Oil & Gas Co., lessee. Location: Near Mize P. O., about 1 mile up the Murphy Fork on Grassy Creek from the post office. Commenced: May, 1917. Completed: June, 1917. Production: Dry.

Strata.		
Pennsylvanian System.		Thickness Depth
Soil .....	18	18
Limestone and shells .....	12	30
Limestone, blue .....	10	40
Sandstone .....	125	165
Shale .....	3	168
Sandstone .....	57	225
Shale .....	20	245
Sandstone .....	5	250
Shale .....	10	260
Sandstone .....	60	320
Shale .....	6	326
Sandstone .....	6	332
Shale .....	18	350
Mississippian System.		
Limestone (Little Lime) .....	20	370
Shale .....	22	392
Limestone (Big Lime) .....	108	500
Shale (Waverly) .....	461	961
Shale, black .....	19	980
Shale, white .....	10	990
Sandstone (Berea) .....	5	995
Shale, white .....	15	1,010
Devonian System.		
Shale, brown (Chattanooga) .....	250	1,260
Shale, white (Chattanooga) .....	20	1,280
Shale, black .....	3	1,283
Limestone "sand" .....	37	1,320
Total depth .....		1,320

**Log No. 926**

Hurt Dowery, No. 1, lessor. Murphy Fork Oil & Gas Co., lessee.  
 Location: Near Mize P. O., about  $2\frac{1}{2}$  miles from Mize P. O., on the  
 left hand fork of Murphy Fork of Grassy Fork. Commenced: April,  
 1917. Completed: May, 1917. Production: Dry. Authority: C. E.  
 Bales.

Strata.		
Pennsylvanian System		Thickness Depth
Soil .....	17	17
Shale .....	23	40
Sandstone .....	185	225
Shale .....	2	227
Sandstone .....	48	275
Shale, (show of gas) .....	60	335

	Thickness	Depth
<b>Mississippian System.</b>		
Limestone and shells .....	35	370
Shale, red .....	18	388
Limestone and shells .....	22	410
Limestone (Big Lime) .....	150	560
Shale (Waverly) .....	440	1,000
Sandstone (Berea) .....	5	1,005
Shale, white .....	5	1,010
<b>Devonian System.</b>		
Shale, black (Chattanooga) .....	25	1,035
Shale, white (Chattanooga) .....	15	1,050
Shale, brown (Chattanooga) .....	205	1,255
Shale, white (Chattanooga) .....	15	1,270
Shale, black (Chattanooga) .....	19	1,289
Limestone "sand" .....	136	1,425
Shale, white .....	15	1,440
Shale, red .....	6	1,446
Total depth .....		1,446

**Log No. 927**

Charles Coffee, No. 1, lessor. Kentucky Oil Land Investment Co., lessee. Location: White Oaks Creek, near Williams P. O. Authority: L. Beckner.

**Strata.**

	Thickness	Depth
<b>Pennsylvanian System.</b>		
Soil .....	10	10
Sand .....	30	40
Shale, hard .....	25	65
Sand .....	15	80
Shale, hard .....	90	170
Sand .....	125	295
Shale, hard .....	5	300
Sand .....	48	348
Shale, hard .....	52	400
Sand .....	35	435
Shale, hard .....	30	465
<b>Mississippian System.</b>		
Limestone (Little Lime) .....	35	500
Shale, hard .....	17	517
Limestone (Big Lime) .....	123	640
Shale (Waverly) .....	410	1,050
Shells, gritty .....	10	1,060
Shale, hard, white .....	45	1,105
Sandstone .....	20	1,125

Mississippian System.		Thickness	Depth
Shale, brown (Sunbury) .....	5	1,130	
Sandstone (Berea) .....	35	1,165	
Shale, hard, white .....	30	1,195	
Sandstone (Berea), gray .....	35	1,230	
Shale, hard, white .....	110	1,340	
Devonian System.			
Shale, brown (Chattanooga) .....	220	1,560	
Shale, hard, white .....	37	1,597	
Total depth .....		1,597	

NOTE—This record is irregular in the lower part of the Mississippian System. A white shale of 110 feet is quite out of place above the Chattanooga Shale, and indicates faulty recordation. The Sunburst is also very thin.

### Log No. 928

Andy Gose, No. 2, lessor. Location:— Commenced: September 8, 1913. Completed: Oct. 15, 1913. Drillers: J. A. Frentz and S. E. Ewing. Production: Pay oil from 1918' 9" to 1,925' 9". Authority: L. Beckner.

#### Strata.

Pennsylvanian System.		Thickness	Depth
Soil .....	13	13	
Shale, hard, black .....	122	135	
Sand .....	50	185	
Shale, hard .....	25	210	
Cannel coal .....	5	215	
Shale .....	395	610	
Sand .....	160	770	
Shale, hard .....	30	800	
Sand, white .....	80	880	
Shale, hard .....	30	910	
Mississippian System.			
Limestone, black .....	10	920	
Limestone (Big Lime), white .....	190	1,110	
Shale, light gray .....	25	1,135	
Shells, shale, hard .....	440	1,575	
Shale, hard, black .....	10	1,585	
Sandstone (Berea) .....	20	1,605	
Shale, hard, white .....	20	1,625	
Devonian System.			
Shale, black, hard (Chattanooga) .....	284'9"	1,909'9"	
Limestone "sand," (Corniferous) .....	20'3"	1,930	
Total depth .....		1,930	



**Log No. 929**

A. A. Gose, No. 3, lessor. Commenced: Nov. 13, 1913. Completed: Dec. 22, 1913. Authority: L. Beckner.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	181½	181½
Cannel coal and shale .....	8½	100
Shale, hard .....	402	502
Sand, soft .....	118	620
Shale, hard .....	160	780
Sand, settling .....	60	840
Shale, hard .....	90	930

## Mississippian System.

Limestone (Little Lime) .....	10	940
Shale .....	10	950
Limestone (Big Lime) .....	20	970
Shale (Waverly) .....	155	1,125
Shale, hard .....	460	1,585
Sandstone (Berea) .....	10	1,595
Shale, hard .....	20	1,615
Shale, hard, black .....	25	1,640

## Devonian System.

Shale (Chattanooga) .....	264	1,904
Limestone "sand" (Corniferous) .....	22 '2"	1,926 '2"
Limestone "sand" (Corniferous) .....	19	1,945 '2"
Total depth .....		1,945 '2"

**Log No. 930**

L. M. Haney, No. 1, lessor. Completed: Aug. 5, 1913. Drillers: W. R. Forman and H. R. Newland. Production: First pay 3'6" from top of sand; second pay 9 to 14 feet in sand. Casinghead alt.: 982.1 feet. Authority: L. Beckner.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	5	5
Shale, etc. ....	49	54
Cannel coal .....	5	59
Shale, hard .....	81	140
Sand, soft top .....	187	327
Sandstone (Pottsville) .....	253	580

Mississippian System.	Thickness	Depth
Limestone (Little Lime) .....	15	595
Limestone (Big Lime) .....	110	705
Shale (Waverly) .....	165	870
Shale, brown .....	430	1,300
Sandstone (Berea) .....	30	1,330
Shale, hard .....	65	1,395

## Devonian System.

Shale, black (Chattanooga) .....	256	1,651
Limestone "sand" (Corniferous) .....	20	1,671
Total depth .....		1,671

## Log No. 931

L. M. Haney, No. 2, lessor. Commenced: July 24, 1913. Completed: Sept. 1, 1913. Drillers: T. Christie, E. Guignon, G. Barnes and W. R. Forman. Casinghead alt.: 1,136.38 feet. Authority: L. Beckner.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	13	13
Cannel coal and shale .....	117	130
Coal, bituminous and shale .....	91	221
Sand .....	259	480
Shale .....	205	685

## Mississippian System.

Limestone (Little Lime) .....	20	705
Limestone (Big Lime) .....	155	860
Shale, brown .....	610	1,470
Sandstone (Berea) .....	20	1,490
Shale, hard .....	5	1,495

## Devonian System.

Shale, black (Chattanooga) .....	318'9"	1,813'9"
Limestone (Corniferous), (pay 1-9) .....	20'8"	1,834'5"
Total depth .....		1,834'5"

**Log No. 932**

L. M. Haney, No. 3, lessor. Commenced: Aug. 27, 1913. Completed: Sept 15, 1913. Drillers: W. R. Forman and H. Creel. Production: Pay oil from 1,746 '6 to 1,756 '6". Authority: L. Beckner.

Strata.		Thickness	Depth
Pennsylvanian System.			
Soil .....		18	18
Shale and sand .....		72	90
Shale, hard .....		60	150
Soft coal .....		0	150
Cannel coal and shale .....		35	185
Shale .....		5	190
Sand .....		230	420
Shale, hard .....		200	620
Sand, white .....		50	670
Shale, hard, black .....		95	765
Sand .....		31	796
Mississippian System.			
Limestone (Little Lime) .....		34	830
Limestone (Big Lime), light gray, hard .....		154	984
Sandstone .....		166	1,150
Sandstone (Berea in part) .....		265	1,415
Shale, brown, sandy .....		34	1,449
Devonian System.			
Shale, black (Chattanooga) .....		285	1,744
Limestone "sand" .....		20	1,764
Total depth .....			1,764

**Log No. 933**

I. N. Caskey, No. 1, lessor. Completed: Feb. 6, 1918. Driller: G. Barnes. Authority: L. Beckner.

Strata.		Thickness	Depth
Pennsylvanian System.			
Soil .....		18	18
Sand .....		12	30
Coal (cannel) .....		3	33
Shale, hard, sandy, (dark, heavy oil) .....		60	93
Sand and shale, hard .....		389	482

## Mississippian System.

	Thickness	Depth
Limestone (Big Lime), (cased) .....	15	497
Limestone and shale (Big Lime in part) .....	250	747
Sand (Big Injun), (gas) .....	5	752
Shale .....	250	1,002
Sand (Berea) .....	45	1,047
Shale, hard .....	50	1,097

## Devonian System.

Shale, black (Chattanooga) .....	300	1,397
Shale and fire clay .....	53	1,450
Limestone "sand" (Corniferous), (salt water) .....	121 $\frac{1}{2}$	1,462 $\frac{1}{2}$
Total depth .....		1,462 $\frac{1}{2}$

## Log No. 934

Mattie Burton, No. 1, lessor. Completed: Dec. 31, 1913. Driller: C. E. Stalker. Authority: L. Beckner.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
To salt sand .....	580	580
Sand, salt .....	10	590
Sand .....	155	745
Shale, hard .....	35	780
Sand, salt .....	126	906

## Mississippian System.

Limestone (Big Lime) .....	25	930
Shale (Waverly) .....	160	1,090
Limestone .....	309	1,390
Shale, brown .....	130	1,520
Sandstone (Berea) .....	10	1,530
Shale, hard, white .....	25	1,555

## Devonian System.

Shale, brown (Chattanooga) .....	20	1,575
Shale, hard (Chattanooga) .....	247	1,822
Limestone "sand" .....	33	1,855
Limestone "sand," (gas 1,860) (oil 1867-71) .....	25	1,880
Total depth .....		1,880

**Log No. 935**

Home Oil Co., No. 1, lessee. Location: Cannel City. Commenced: Jan. 15, 1913. Completed: Feb. 4, 1913. Casinghead elevation: 930 feet. Authority: L. Beckner.

Strata.		
Pennsylvanian System.		Thickness Depth
Soil .....	15	15
Sand .....	10	25
Shale, hard .....	55	80
Coal .....	3	83
Sandstone .....	77	160
Shale .....	40	200
Sand .....	70	270
Shale, hard, white .....	20	290
Shale .....	20	310
Sand, white .....	95	405
Mississippian System.		
Limestone (Big Lime) .....	180	585
Limestone and shale, hard .....	40	625
Sandstone, shaly, hard .....	175	800
Shale, hard, light, gray .....	480	1,280
Sandstone (Berea) .....	22	1,302
Shale, hard .....	38	1,340
Devonian System.		
Shale, hard, black (Chattanooga) .....	260	1,600
Limestone "sand" (Corniferous) .....	36	1,636
Limestone "sand" .....	42	1,678
Total depth .....		1,678

**Log No. 936**

Buck Jones, No. 1, lessor. Commenced: Sept. 24, 1913. Completed: Oct. 17, 1913. Casinghead elevation: 1,175.26 feet. Authority: L. Beckner.

Strata.		
Pennsylvanian System.		Thickness Depth
Soil .....	10	10
Sand and shale, hard .....	110	120
Shale, hard .....	390	510

## Mississippian System.

	Thickness	Depth
Limestone and sandstone .....	420	930
Shale, hard, light gray .....	130	1,060
Sandstone (Berea in part) .....	460	1,520
Shale, hard .....	25	1,545

## Devonian System.

Shale, hard, black (Chattanooga) .....	31	1,576
Shale (Chattanooga) .....	250	1,826
Limestone "sand" .....	56	1,882
Limestone .....	271½	1,909½
Total depth .....		1,909½

## Log No. 937

A. E. Sebastian, No. 1, lessor. Commenced: May 18, 1913. Completed: June 5, 1913. Drillers: G. E. Musser and Mike Dolan. Production: Oil 6-11 feet in "sand." Authority: L. Beckner.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Soil .....	10	10
Cannel coal and shale .....	95	105
Sand .....	275	380
Shale, hard .....	204	584
Sand? .....	56	640
Shale, hard .....	85	725

## Mississippian System.

Limestone (Little Lime) .....	10	735
Shale .....	15	750
Limestone (Big Lime), (cased) .....	165	915
Shale, hard .....	440	1,355
Sandstone (Berea) .....	15	1,370
Shale, hard .....	30	1,400

## Devonian System.

Shale, hard, black (Chattanooga) .....	30	1,430
Shale, black (Chattanooga) .....	286½	1,716½
Limestone "sand," (first oil 1,724) .....	12½	1,729
Total depth .....		1,729

**Log No. 938**

Daniel Gullet, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Cannel City District. Commenced: Oct. 27, 1913. Completed: Dec. 22, 1913.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	12	12
Shale .....	84	96
Coal .....	2	98
Shale and shells .....	272	370
Sand .....	270	640
Shale .....	30	670

## Mississippian System.

Limestone (Little Lime) .....	20	690
Shale and shells .....	30	720
Limestone (Big Lime) .....	120	840
Shale (Waverly) .....	440	1,280
Sandstone (Berea) .....	25	1,305
Shale and shells .....	60	1,365

## Devonian System.

Shale, black (Chattanooga) .....	294	1,659
Shale .....	40	1,699
Limestone (Corniferous) .....	48	1,747
Limestone "sand," brown .....	2	1,749
Total depth .....		1,749

**Log No. 939**

J. B. Whitt, No. 1, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Cannel City District. Commenced: July 7, 1913. Completed: July 27, 1913. Shot, 50 qts.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	14	14
Shale, (1 bailer water 100) .....	86	100
Sand and shells .....	105	205
Native coal .....	4	209
Shale and shells .....	81	290
Shale and shells .....	290	580
Sand, salt, (first) .....	160	740

## Pennsylvanian System.

	Thickness	Depth
Shale .....	50	790
Sand, salt .....	90	880
Shale .....	25	905

## Mississippian System.

Limestone (Little Lime) .....	17	922
Shale (Pencil Cave) .....	4	926
Limestone (Big Lime) .....	154	1,080
Shale .....	40	1,120
Sandstone (Big Injun) .....	165	1,285
Shale and shells .....	235	1,520
Sand .....	20	1,540
Shale, brown .....	10	1,550
Sandstone (Berea) .....	20	1,570
Shale .....	40	1,610

## Devonian System.

Shale, brown (Chattanooga) .....	260	1,870
Shale .....	20	1,890
Limestone "sand" (Corniferous) .....	19	1,909
Total depth .....		1,909

Pay 1897-1905.

Did not drill through sand.

Last 4 feet brown, sandy lime.

## Log No. 940

H. C. Keeton, No. 3, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Cannel City District. Commenced: July 31, 1913. Completed: Aug. 31, 1913. Shot Sept. 1, 1913, 50 qts.; 2nd shot, 50 qts.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Soil and clay .....	40	40
Shale .....	220	260
Cannel coal .....	2	262
Shale .....	288	550
Sand, salt .....	165	715
Shale .....	60	775
Sand, salt .....	105	880
Shale .....	5	885



## Mississippian System.

Thickness Depth

Limestone (Little Lime) .....	13	898
Limestone (Big Lime) .....	174	1,072
Shale (Waverly) .....	28	1,100
Sandstone (Big Injun) .....	30	1,130
Shale, shelly .....	70	1,200
Shale .....	30	1,230
Shale, shelly .....	70	1,300
Shale .....	50	1,350
Shale, shelly .....	75	1,425
Shale white .....	75	1,500
Limestone and shale .....	20	1,520
Sandstone (Berea) .....	20	1,540
Shale .....	20	1,560

## Devonian System.

Shale, black (Chattanooga) .....	280	1,840
Shale .....	27	1,867
Limestone (Corniferous) .....	10	1,877
Limestone .....	8 <sup>1</sup> / <sub>2</sub>	1,885 <sup>1</sup> / <sub>2</sub>
Total depth .....		1,885 <sup>1</sup> / <sub>2</sub>

1st oil 1870; more gas and oil 1872; bottom sand 1877.

## Log No. 941

H. C. Keeton, No. 4, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Cannel City District. Commenced: Nov. 21, 1913. Completed: Dec. 20, 1913.

## Strata.

## Pennsylvanian System.

Thickness Depth

Shale .....	30	30
Sand .....	40	70
Coal .....	3	73
Shale and shells .....	100	173
Limestone .....	60	233
Shale and shells .....	307	540
Sand, salt .....	190	730
Shale .....	25	755
Sand, salt .....	120	875
Shale .....	5	880

## Mississippian System.

	Thickness	Depth
Limestone (Little Lime) .....	20	900
Limestone (Big Lime) .....	190	1,090
Shale and shells .....	20	1,110
Sandstone (Big Injun) .....	30	1,140
Shale, shelly .....	380	1,520
Shale, copper .....	10	1,530
Sandstone (Berea) .....	50	1,580

## Devonian System.

Shale, brown (Chattanooga) .....	260	1,840
Shale, white .....	25	1,865
Limestone (Corniferous), (oil 1871) ....	17	1,882
Total depth .....		1,882

## Log No. 942

H. C. Keeton, No. 6, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Cannel City District. Commenced: Sept. 12, 1913. Completed: Oct. 18, 1913. Shot 50 qts.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Sand and mud .....	11	11
Stone .....	5	16
Shale and shells .....	114	130
Sand .....	20	150
Shale .....	50	200
Sand .....	30	230
Shale .....	112	342
Sand and shells .....	178	520
Shale .....	28	548
Sand .....	12	560
Shale .....	74	634
Sand, salt .....	126	760
Shale .....	5	765
Sand .....	30	795
Shale .....	70	865
Sand .....	90	955
Shale .....	5	960

## Mississippian System.

Limestone (Little Lime) .....	12	972
Shale .....	8	980
Sand .....	15	995

Mississippian System.		Thickness	Depth
Limestone (Big Lime) .....		167	1,162
Shale, white .....		30	1,192
Sandstone (Big Injun) .....		28	1,220
Shale and shells .....		396	1,616
Shale, brown .....		9	1,625
Sandstone (Berea) .....		15	1,640
Shale, white .....		30	1,670
Devonian System.			
Shale, brown (Chattanooga) .....		267	1,937
Shale, white .....		30	1,967
Limestone "sand" (Corniferous), (oil 1974) .....		16	1,983
Total depth .....			1,983

### Log No. 943

H. C. Keeton, No. 7, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Cannel City District. Shot Oct. 8, 1913, 50 qts.

Strata.		Thickness	Depth
Pennsylvanian System.			
Soil .....		25	25
Coal .....		2	27
Shale and shells .....		511	538
Sand Salt .....		192	730
Break .....		70	800
Sand .....		50	850
Break .....		15	865
Mississippian System.			
Limestone .....		20	885
Shale .....		10	895
Sand .....		12	907
Limestone (Big Lime) .....		160	1,067
Shale and shells .....		30	1,097
Sand .....		23	1,120
Shale and shells .....		405	1,525
Shale, brown .....		10	1,535
Sandstone (Berea) .....		40	1,575
Devonian System.			
Shale, brown (Chattanooga) .....		271	1,846
Shale, white .....		23½	1,869½
Limestone "sand," (Corniferous) .....		4½	1,874
Limestone, (oil and gas) (Corniferous) .....		8	1,882
Limestone (Corniferous) .....		7	1,889
Total depth .....			1,889

**Log No. 944**

J. B. Whitt, No. 3, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Cannel City. Commenced: Aug. 27, 1913. Completed: Sept. 11, 1913. Shot Oct. 10, 1913, 60 qts.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay .....	158	158
Coal .....	3	161
Shale .....	57	218
Coal .....	2	220
Shale and shells .....	297	517
Sand, salt .....	201	718
Shale .....	12	730
Sand, salt .....	112	842
Shale, black .....	5	847
Sand, black .....	26	873
Shale, white .....	5	878

## Mississippian System.

Limestone (Little Lime) .....	9	887
Shale .....	2	889
Limestone (Big Lime) .....	170	1,059
Shale, white .....	27	1,086
Sandstone (Big Injun) .....	30	1,116
Shale and shells .....	71	1,187
Shale .....	18	1,205
Shale and shells, (water at 542) .....	245	1,450
Shale, white .....	42	1,492
Shale, brown (Sunbury) .....	8	1,500
Sandstone (Berea) .....	23	1,523
Shale, white .....	17	1,540
Shale, shelly .....	8	1,548

## Devonian System.

Shale, brown (Chattanooga) .....	276	1,824
Shale, white .....	25	1,849
Limestone "sand," (Corniferous) .....	18	1,867
Total depth .....		1,867

Pay 1854-1863; gas 1858.

**Log No. 945**

J. B. Whitt, No. 4, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Cannel City District. Commenced: Sept. 27, 1913. Completed: Oct. 28, 1913. Shot, 50 qts.

Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	250	250
Cannel coal? .....	10	260
Sand and shells .....	90	350
Limestone .....	50	400
Sand and shells .....	50	450
Shale, black .....	50	500
Limestone and shell .....	100	600
Shale, brown .....	60	660
Sand, salt .....	180	840
Shale, black .....	40	880
Sand, salt .....	100	980
Shale, white .....	15	995

**Mississippian System.**

Limestone (Little Lime) .....	11	1,006
Shale .....	2	1,008
Limestone (Big Lime) .....	150	1,158
Shells and shale .....	42	1,200
Sand shells .....	80	1,280
Limestone .....	20	1,300
Shale and shells .....	100	1,400
Sand, hard .....	50	1,450
Shale .....	190	1,640
Sandstone (Berea) .....	20	1,660

**Devonian System.**

Shale, brown (Chattanooga) .....	300	1,960
Shale, white .....	21	1,981
Limestone "sand" (Corniferous) (oil 1900).	15½	1,996½
Total depth .....		1,996½

**Log No. 946**

J. B. Whitt, No. 11, lessor. Ohio Fuel Oil & Gas Co., lessee. Location: Cannel City District.

Strata.

Pennsylvanian System.	Thickness	Depth
Clay .....	10	10
Sand .....	80	90

## Pennsylvanian System.

	Thickness	Depth
Shale, soft .....	120	210
Sand .....	65	275
Shale .....	15	290
Limestone, gritty? .....	30	320
Shale .....	90	410
Limestone .....	120	530
Shale and shells .....	35	565
Limestone? .....	35	600
Limestone, white? .....	87	687
Sand, salt, (water 745) .....	143	830
Shale, black .....	5	835
Sand .....	25	860
Shale .....	40	900
Sand .....	105	1,005
Shale .....	25	1,030
Sand .....	10	1,040

## Mississippian System.

Limestone (Little Lime) .....	7	1,047
Muck, black .....	4	1,051
Limestone (Big Lime) .....	157	1,208
Shale, white .....	42	1,250
Limestone .....	25	1,275
Shale and shells .....	30	1,305
Limestone .....	20	1,325
Shale and shells .....	155	1,480
Limestone, hard .....	90	1,570
Shale, white .....	45	1,615
Limestone, white .....	25	1,640
Sand, hard .....	30	1,670
Shale, black .....	15	1,685
Sandstone (Berea) .....	15	1,700
Shale and shells .....	25	1,725

## Devonian System.

Shale, brown (Chattanooga) .....	275	2,000
Shale, white .....	13	2,013
Limestone "sand" (Corniferous), (oil 2019)..	16	2,029
Total depth .....		2,029

**Log No. 947**

Riley Benton, No. 2, lessor. Dreadnaught Oil & Refining Co., lessee. Location: Brush Creek, 1½ miles from Cannel City, Morgan Co., Ky.

Strata.			
Pennsylvanian System.		Thickness	Depth
Conductor 8¼" pipe .....		21	21
Shale, dark .....		50	71
Shale, white .....		177	248
Sand .....		171	419
Shale .....		12	431
Sand .....		20	451
Shale .....		49	500
Limestone? .....		25	525
Shale .....		14	539
Sand .....		50	589
Shale, sandy .....		6	595
Shale and limestone shells? .....		23	618
Sand .....		7	625
Shale .....		3	628
Mississippian System.			
Limestone (Little Lime) .....		14	642
Shale (break) .....		12	654
Limestone (Big Lime), (cased 6-5/8) .....		150	794
Shale, green .....		50	844
Sandstone (Big Injun), (oil and gas) .....		36	880
Shale (Waverly), (gas) .....		354	1,234
Shale, brown (Suubury) .....		10	1,244
Sandstone (Berea), (showing oil) .....		39	1,283
Shale, white .....		30	1,313
Devonian System.			
Shale, brown (Chattanooga) .....		290	1,603
Fire clay .....		42	1,645
Limestone (cap rock) .....		8	1,653
Limestone, (pay oil at 5, 7, 11 and 17) .....		11	1,664
Total depth .....			1,664

**Log No. 948**

Lewis Williams, No. 1, lessor. Mid South Gas Co., lessee. Location: 1 mile north of fault on Mine Fork. Casinghead elevation: 740 feet.

## Strata.

Pennsylvanian System.	Thickness	Depth
Surface gravel .....	16	16
Sand .....	70	86
Shale, soft .....	9	95
Mississippian System.		
Limestone (Little Lime) .....	10	105
Shale (Pencil Cave) .....	5	110
Limestone (Big Lime), (little gas 130) .....	50	160
Sand, (oil show 207) .....	200	360
Limestone shale (oil show 390) .....	122	482
Sandstone .....	37	519
Shale, blue .....	30	549
Sandstone (Squaw) .....	14	563
Shale .....	20	583
Shale, brown (Sunbury) .....	19	602
Sandstone (Berea) .....	87	689
Devonian System.		
Shale, brown (Chattanooga) .....	23	712
Total depth .....		712
Little gas 415. Dry hole.		

**Log No. 949**

J. C. Hill, No. 1, lessor. Location: Open Fork, near Johnson County line. Casinghead elevation: 725 feet.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	3	3
Sand, (water 50) .....	150	153
Sand, loose, (large pebbles) .....	4	157
Shale, soft .....	16	173
Shale .....	52	225
Shale, red and blue .....	14	239
Limestone, white .....	3	242
Sand and shale .....	24	266



Pennsylvanian System.		Thickness	Depth
Sand, black, and limestone .....		18	284
Shale .....		18	302
Sand .....		3	305
Mississippian System.			
Limestone (Little Lime), gray .....		30	335
Limestone (Big Lime), white .....		90	425
Sand (break 268-372) .....		17	442
Shale (Waverly), (gas and salt water 392-5) ..		108	550
Shale, (little oil 425) .....		45	595
Limestone .....		10	605
Shale .....		59	664
Limestone and sand, (show oil 590) .....		21	685
Shale, (show oil 666-670) .....		7	692
Sand .....		31	723
Shale and sand .....		22	745
Sand .....		7	752
Shale and limestone .....		21	773
Shale .....		17	790
Sandstone (Berea) .....		98	888
Devonian System.			
Shale .....		16	904
Total depth .....			904

## CHAPTER IX.

### MUHLENBERG COUNTY.

Production: Oil and Gas. Producing sands: Pottsville Sandstone (Pennsylvanian), and Penrod (Chester age) (Mississippian).

#### Log No. 950

Cox, No. 1, lessor. Location: 3 miles north of Dunmor. Production: 800,000 cu. ft. Gas. Gray Sand Oil and Gas Co., Central City, lessee. Authority: H. F. Storer, Central City.

Strata.

Pennsylvanian System.	Thickness	Depth
Shale .....	30	30
Sandstone (water) .....	300	330
Shale .....	45	375
Mississippian System.		
Limestone .....	130	505
Sandstone .....	20	525
Shale .....	19	544
Sandstone, (oil and gas show) .....	12	556
Limestone .....	73	629
Sandstone, (gas) .....	7	636
Shale .....	7	643
Sandstone, (gas) .....	22	665
Limestone .....	286	951
Total depth .....	-	951

Casing record:

71 ft. of 8¼ casing.

365 ft. of 6¼ casing.

397 ft. of 2 in. tubing on Packer.

NOTE—This well probably finished in the Chester.

#### Log No. 951

Poole, No. 1, lessor. Location: Twin Tunnels. Production: Dry.  
Strata.

Pennsylvanian System.	Thickness	Depth
Sandstone .....	41	41
Coal .....	2	43
Shale .....	71	114
Coal .....	4	118
Sandstone .....	6	124

		Thickness	Depth
Pennsylvanian System.			
Shale .....		96	220
Coal .....		2	222
Sandstone, (water) .....		8	230
Shale .....		140	370
Sandstone, (water) .....		300	670
Shale (Pencil Cave) .....		30	700
Mississippian System.			
Limestone, sandy, hard .....		15	715
Shale .....		35	750
Limestone, hard .....		20	770
Shale .....		6	776
Limestone .....		6	782
Shale .....		8	790
Limestone .....		15	805
Shale .....		20	825
Limestone, sandy, (water) .....		25	850
Shale .....		35	885
Limestone, cherty .....		15	900
Limestone, cherty, very hard .....		30	930
Shale .....		10	940
Limestone .....		5	945
Sandstone .....		15	960
Shale .....		10	970
Sandstone .....		30	1,000
Sandstone .....		12	1,012
Total depth .....			1,012

NOTE—This well probably finished in the Chester.

### Log No. 952

Oakes Heirs, No. 1, lessor. Commenced: Oct. 15, 1918. Production: Dry; casing pulled, well plugged and abandoned. Authority: The Ohio Oil Co.

Strata.

		Thickness	Depth
Pennsylvanian System.			
Soil, yellow, soft .....		9	9
Rock, gray, soft .....		10	19
Shale, hard, gray, soft .....		4	23
Coal .....		3½	26½
Shale, hard .....		3½	30
Sand, hard, dry .....		2	32
Shale, hard, blue, medium .....		74	106

Mississippian System.

	Thickness	Depth
Limestone, hard, white .....	20	126
Shale, hard, blue .....	60	186
Shale, hard, white .....	80	266
Sand, gray, soft .....	6	272
Shale, hard, black, soft .....	4	276
Limestone, hard, gray .....	3	279
Limestone, hard, brown .....	3	282
Shale, hard, blue, soft .....	19	301
Shale, hard, sandy .....	15	316
Shale, hard, gray, sandy .....	50	366
Shale, hard, black .....	10	376
Shale, hard, white .....	30	406
Limestone, hard, white .....	10	416
Shale, hard, blue, soft .....	50	466
Sand, soft, brown .....	10	476
Shale, hard .....	15	491
Sand, gray, soft .....	45	536
Shale, hard, blue .....	50	586
Limestone, hard, white .....	5	591
Shale, hard .....	15	606
Shale, hard, brown, soft .....	30	636
Shale, hard, blue, soft .....	50	686
Sand, hard, white, (water 720) .....	85	771
Shale, brown, soft .....	35	806
Shale, hard, blue .....	20	826
Shale, hard, sandy .....	65	891
Sand, hard, gray .....	15	906
Shale, hard, blue .....	15	921
Sand, gray, soft .....	25	946
Sand, fine, white, hard, (hole full fresh water)	100	1,046
Shale, hard, blue, soft .....	20	1,066
Shale, hard, black, soft .....	25	1,091
Limestone, sandy, hard, brown .....	15	1,106
Limestone, dark, extra hard .....	22	1,128
Shale, hard, gray, soft .....	33	1,161
Limestone, hard, dark, sandy .....	3	1,164
Shale, hard, blue, soft .....	15	1,179
Limestone, hard, brown .....	12	1,191
Limestone, hard, white .....	23	1,214
Shale, hard, green, soft .....	15	1,229
Shale, hard, blue, soft .....	55	1,284
Limestone, hard, brown .....	20	1,304
Shale, hard, blue .....	8	1,312
Shale, hard .....	10	1,322
Shale, hard, dark, extra soft .....	32	1,354
Limestone, gray, extra hard .....	3	1,357

Mississippian System.	Thickness	Depth
Shale, hard, blue .....	7	1,364
Limestone, hard, brown .....	3	1,367
Shale, hard, blue, soft .....	5	1,372
Limestone, hard, brown, sandy .....	13	1,385
Shale, hard, blue .....	7	1,392
Limestone, hard, brown .....	5	1,397
Shale, hard, green .....	10	1,407
Limestone, hard, gray .....	8	1,415
Shale, hard, gray .....	4	1,419
Shale, hard, black, soft .....	18	1,437
Shale, hard, blue, soft .....	85	1,522
Limestone, hard, brown .....	5	1,527
Shale, hard, blue, soft .....	20	1,547
Sand, white, soft .....	34	1,581
Shale, hard, blue .....	5	1,586
Sand, white, extremely hard .....	31	1,617
Limestone, white, extra hard .....	13	1,630
Limestone, yellow, soft .....	5	1,635
Shale, hard, blue .....	2	1,637
Limestone, yellow, soft .....	3	1,640
Limestone, gray, extra hard .....	26	1,666
Shale, hard, blue .....	17	1,683
Shale, brown, soft .....	7	1,690
Shale, blue, soft .....	13	1,703
Sand, white .....	15	1,718
Shale, hard, green .....	17	1,735
Limestone, gray .....	20	1,755
Shale, hard, blue .....	20	1,775
Limestone, brown .....	13	1,788
Shale (red rock) .....	3	1,791
Sand, gray, green .....	19	1,810
Shale, hard, blue .....	25	1,835
Sand, gray, green, (New Providence) .....	5	1,840
Shale, hard, blue, (New Providence) .....	25	1,865
Limestone, brown, (New Providence) .....	5	1,870
Shale, hard, blue, (New Providence) .....	30	1,900
Devonian System.		
Shale, brown (Chattanooga) .....	35	1,935
Limestone, hard, brown .....	5	1,940
Shale, hard, blue .....	2	1,942
Limestone, brown .....	4	1,946
Limestone, white .....	16	1,962
Shale, hard, blue .....	3	1,965
Limestone, hard, dark .....	15	1,980
Limestone, sandy .....	7	1,987

Mississippian System.		Thickness	Depth
Shale, hard, blue .....		3	1,990
Limestone "sand," green .....		15	2,005
Silurian System.			
Limestone, white .....		19	2,024
Limestone, hard, white .....		21	2,045
Shale, hard, blue .....		40	2,085
Limestone, hard, gray .....		20	2,105
Shale, hard, blue .....		25	2,130
Ordovician System.			
Limestone, white .....		80	2,210
Limestone, gray and brown .....		10	2,220
Limestone "sand," green .....		38	2,258
Limestone, soft, white, (salt water 2,245)....		7	2,265
Total depth .....			2,265

**Log No. 953**

Lacy well, No. 1, lessor. Casinghead elevation: 450 feet. Bar.  
 Authority: L. Beckner.

Strata.		Thickness	Depth
Pennsylvanian System.			
Soil and clay .....		10	10
Sandstone .....		33	43
Shale .....		11	54
Coal .....		1	55
Clay .....		3	58
Sandstone .....		16	74
Shale .....		34	108
Coal No. 12 .....		5	113
Fire clay .....		1	114
Limestone, black .....		1	115
Coal, No. 11 .....		6	121
Fire clay .....		5	126
Sandstone .....		7	133
Shale .....		5	138
Sandstone .....		23	161
Shale .....		32	193
Shale, hard, black .....		3	196
Coal No. 9 .....		5	201
Total depth .....			201

**Log No. 954**

St. Bernard Mining Co. Location:  $1\frac{1}{4}$  miles northeast of White Plains. Casinghead elevation: 400 feet, Bar. Authority: St. Bernard Mining Co., and L. Beckner.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay .....	15	15
Shale, soft, and limestone .....	17	32
Shale, hard, black, and coal .....	2	34
Sandstone .....	10	44
Shale .....	5	49
Sandstone .....	14	63
Shale and coal .....	17	80
Fire clay .....	1	81
Limestone .....	2	83
Gob .....	1	84
Coal .....	3	87
Fire clay .....	5	92
Sandstone .....	9	101
Shale .....	3	104
Limestone .....	5	109
Shale .....	32	141
Sandstone .....	60	201
Limestone .....	1	202
Shale .....	8	210
Sandstone .....	20	230
Shale .....	6	236
Sandstone .....	26	262
Total depth .....		262

**Log No. 955**

Pond Creek Bottom Well. Location:  $\frac{1}{2}$  mile north of Rochester Road. Authority: L. Beckner.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay .....	30	30
Quicksand, blue .....	8	38
Gravel bed .....	8	46
Sandstone, blue .....	8	54
Shale, soft .....	8	62
Shale, hard, gray .....	17	79
Coal .....	$\frac{1}{2}$	$79\frac{1}{2}$
Shale (Kidney) .....	$1\frac{1}{2}$	81

Pennsylvanian System.	Thickness	Depth
Shale, hard, black .....	3	84
Fire clay .....	2	86
Shale, soft .....	11	97
Shale, hard, gray .....	33	130
Shale, hard, black .....	2	132
Coal .....	1	133
Fire clay .....	2	135
Shale, soft .....	6	141
Total depth .....		141

**Log No. 956**

Concord Well. Location: At Concord Schoolhouse. Casinghead elevation: 220 feet. Authority: L. Beckner.  
Strata.

Pennsylvanian System.	Thickness	Depth
Soil and clay .....	4	4
Sandstone .....	35	39
Shale, sandy, hard, brown .....	1	40
Shale .....	34	74
Sandstone and shale .....	109	183
Shale .....	5	188
Coal .....	1	189
Fireclay .....	7	196
Limestone and sandstone .....	15	211
Shale .....	24	235
Coal No. 12 .....	6	241
Limestone .....	4	245
Coal No. 11 .....	6	251
Fireclay .....	3	254
Shale .....	8	262
Sandstone .....	15	277
Shale .....	44	321
Shale, hard, black .....	2	323
Coal No. 9 .....	4	327
Total depth .....		327

**Log No. 957**

Location:  $\frac{1}{2}$  mile west of White Plains. Casinghead elevation: 465 feet, Bar. Authority: L. E. Littlepage and L. Beckner.



Strata.		Thickness	Depth
Pennsylvanian System.			
Soil .....		5	5
Sandstone .....		13	18
Shale .....		23	41
Shale, hard, and coal, rotten .....		2	43
Sandstone, blue .....		13	56
Shale, hard, gray .....		10	66
Shale .....		10	76
Sandstone, soft, blue .....		13	89
Shale .....		8	97
Sandstone, white .....		39	136
Shale, hard, gray .....		22	158
Limestone, hard .....		4	162
Shale, hard and gray, black .....		29	191
Coal, (clay parting) .....		1	192
Coal, (clay parting) .....		2	194
Coal, (Bone coal) .....		1	195
Fireclay, hard .....		2	197
Shale, sandy .....		11	208
Sandstone .....		52	260
Shale, hard, gray .....		25	285
Sandstone, white .....		3	288
Shale, blue .....		4	292
Fireclay .....		1	293
Shale, gray .....		11	304
Shale, hard and gray .....		26	330
Fireclay .....		2	332
Sandstone or hard rock .....		9	341
Shale, hard, sandy .....		4	345
Shale, hard and gray .....		19	364
Sandstone, white .....		2	366
Total depth .....			366

**Log No. 957-A.**

Lucy Garrett, No. 1, lessor. Gray Sand Oil & Gas Co., Central City, lessee. Location: 800 feet north and west of Cox No. 2. Production: 12 bbls. oil and 2,500,000 cu. ft. gas approx. Authority: H. F. Storer, Central City.

Strata.		Thickness	Depth
Pennsylvanian System.			
Soil	.....	20	20
Slate	.....	80	100
Sand (water)	.....	47	147

Pennsylvanian System.		Thickness	Depth
Slate	.....	15	162
Sand (gas 294)	.....	204	366
Slate	.....	10	376
Lime	.....	14	390
Slate	.....	28	418
Lime	.....	22	440
Slate	.....	40	480
Lime	.....	30	510
Slate	.....	15	525
Lime	.....	30	555
Lime, broken	.....	39	594
Sand, (gas-show oil)	.....	5	599
Lime	.....	36	635
Slate	.....	15	650
Lime	.....	18	668
Slate	.....	20	688
Sand (gas)	.....	12	700
Slate	.....	14	714
Sand (oil)	.....	13	727
Total depth			727
366 ft. 6¼ casing.			
727 ft. 2 in. tubing.			
Elevation about 50 ft. higher than Cox No. 1.			

# Log No. 957-B

Cox, No. 2, lessor. Gray Sand Oil & Gas Co., Central City, lessee. Location: 400 feet N. W. of Cox No. 1. Elevation: About 30 feet higher than Cox No. 1. Production: 5,000,000 cu. ft. gas approx. This well blew wide open for 3 months, due to accident attending measurement. Finally caught fire and burned for 17 days, destroying rig, etc. Extinguished by steam. Authority: H. F. Storer, Central City, Ky.

## Strata.

Pennsylvanian System.		Thickness	Depth
Soil	.....	12	12
Shale	.....	43	55
Sandstone (water)	.....	65	120
Shale	.....	25	145
Limestone, broken and shale	.....	20	165
Sandstone	.....	183	348
Shale	.....	10	358
Limestone	.....	25	383
Shale	.....	27	410
Limestone	.....	27	437
Shale	.....	66	503

Pennsylvanian System.	Thickness	Depth
Limestone .....	65	568
Sandstone (gas-oil show) .....	4	572
Limestone .....	38	610
Shale, green, broken .....	15	625
Shale .....	19	644
Sandstone, (large gas) .....	6	650
Total depth .....		650
Finished in sand at 650.		
348 ft. 6¼" casing.		
650 ft. 2" tubing.		
NOTE—Well only drilled to second sand.		

## OHIO COUNTY.

Production: Oil and Gas. Producing Sands: Major and other Mississippian Sands; Corniferous (Devonian).

### Log No. 958

Patterson Well No. 1, lessor. Location: Near Olaton, Ky.

Strata.

Mississippian System.	Thickness	Depth
Shale .....	12	12
Limestone, white, hard .....	15	27
Limestone "sand," (oil) .....	5	32
Shale, blue .....	16	48
Limestone, white, hard .....	5	53
Shale, blue .....	11	64
Limestone, white, hard .....	31	95
Limestone, blue, broken .....	9	104
Limestone, sandy .....	10	114
Limestone, white .....	36	150
Limestone, white .....	60	210
Limestone, brown .....	55	265
Limestone, white .....	32	297
Limestone "sand," (oil) .....	6	303
Limestone, gray .....	32	335
Blue Lick formation .....	61	396
Limestone, brown, (cased 8" at 400) .....	4	400
Limestone, white .....	2	402
Shale lime .....	2	404
Limestone, white, hard .....	11	415
Limestone, gray .....	5	420
Limestone, brown .....	6	426

## Mississippian System.

	Thickness	Depth
Limestone, brown and gray .....	5	431
Limestone, light brown, hard .....	5	436
Gas sand .....	10	446
Limestone, light brown .....	19	465
Limestone, gray, hard .....	5	470
Limestone, dark gray .....	44	514
Limestone, gray brown .....	8	522
Limestone, dark brown .....	23	545
Limestone, dark brown .....	37	582
Limestone, gray and brown, hard .....	8	590
Limestone, gray, hard .....	10	600
Limestone, dark gray .....	35	635
Limestone, blue and white .....	15	650
Limestone, dark gray, sandy .....	5	655
Limestone, brown, hard .....	35	690
Limestone, dark gray, hard .....	45	735
Limestone, black, soft .....	29	764
Limestone, dark gray, soft .....	71	835
Limestone, black, soft .....	90	925
Limestone, gray, soft .....	15	940
Limestone "sand," (oil) .....	6	946
Limestone, gray .....	11	957
Limestone "sand," (oil) .....	10	967
Limestone "sand," (oil) .....	9	976
Limestone, gray .....	59	1,035
Limestone, gray, sandy .....	20	1,055
Limestone, blue shell .....	5	1,060
Limestone, blue, and shale .....	5	1,065
Shale, blue .....	23	1,088
Shale, black .....	184	1,272
Limestone, black, hard .....	4	1,276
Limestone, black, dark .....	4	1,280
Limestone, gray black .....	4	1,284
Limestone, black, soft .....	6	1,290
Limestone, black and gray .....	6	1,296
Limestone, gray .....	4	1,300
Sand, light brown, hard, (show of gas) .....	14	1,314
Sand, brown .....	20	1,334
Sand, brown, soft .....	10	1,344
Limestone, black .....	6	1,350
Limestone, black, soft .....	15	1,365
Limestone, black, hard .....	15	1,380
Limestone, gray .....	7	1,387
Limestone, white, soft .....	5	1,392
Total depth .....		1,392

NOTE—This well is located near the Grayson County line in Ohio

County. It was first published in Ser. V, Bull. I, under the Grayson County records. To correct that error it is herewith published as an Ohio County record. It is all in the Mississippian Series, but finished probably close to the Devonian.

## OWSLEY COUNTY.

**Production:** Gas, oil show. **Producing Sand:** Corniferous (Devonian).

### Log No. 959

John G. White Oil & Gas Co., No. 1. Location: On Meadow Creek. Commenced: Feb. 10, 1909. Completed: April 12, 1909. Production: Dry hole. Authority: C. E. Bales.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	8	8
Shale .....	60	68
Sandstone .....	32	100
Shale, blue .....	100	200
Sandstone .....	175	375
Shale, blue .....	50	425
Sandstone, (salt water) .....	193	618
Shale .....	6	624
Mississippian System.		
Limestone (Little Lime) .....	8	632
Shale, blue .....	20	652
Limestone (Big Lime) .....	184	836
Shale (Waverly) .....	438	1,274
Devonian System.		
Shale, brown (Chattanooga) .....	173	1,447
Shale (fire clay) .....	15	1,462
Shale, brown .....	10	1,472
Limestone (Corniferous) .....	31	1,503
Total depth .....		1,503

### Log No. 960

Rufus Barker, No. 1, lessor. Location: At Traveler's Rest P. O. Production: No oil, gas under cap.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Sand (Mountain) .....	469	469

Mississippian System.		Thickness	Depth
Limestone (Big Lime) .....		101	570
Limestone, white .....		14	584
Shale, green (Waverly) .....		398	982
Devonian System.			
Shale, blue, Chattanooga .....		130	1,112
Shale, black, Chattanooga .....		16	1,128
Fire clay .....		4	1,132
Limestone "sand," (gas) .....		20	1,152
Shale, black .....		15	1,167
Limestone "sand" .....		34	1,201
Shale, blue .....		1	1,202
Total depth .....			1,202
Casing record: 32 ft. 8¼ in. casing; 584 ft. 6¼ in. casing.			

## PENDLETON COUNTY.

Production: Small gas. Producing Sands: unnamed, possibly of Trenton age (Ordovician).

### Log No. 961

Location: About 200 yards from the Campbell County line, near Morning View. Authority: L. Beckner.

Strata.

Ordovician System.		Thickness	Depth
Clay and stone .....		10	10
Shale, blue (salt water) .....		80	90
Black sulphur lime, hard .....		35	125
Shale, blue, (s. w. 145) .....		27	152
Limestone, gray, hard .....		12	164
Shale, blue .....		48	212
Limestone, blue, very hard .....		8	220
Limestone, gray, hardest yet .....		16	236
Limestone, light gray .....		8	244
Limestone, black, (gas 248) .....		12	256
Shale, dark .....		4	260
Limestone, dark, very hard .....		8	268
Limestone, brown .....		8	276
Limestone, gray, (gas) .....		16	292
Limestone, dark gray .....		8	300
Limestone, blue, hard .....		28	328
Limestone, black, not so hard .....		20	348
Limestone, gray, very hard .....		36	384
Flint, brown .....		24	408

Ordovician System.	Thickness	Depth
Limestone, gray, flinty, very hard .....	100	508
Flint, brown .....	32	540
Limestone, light gray, not so hard .....	117	657
Flint, brown .....	15	672
Limestone, black .....	25	697
Shale, dark, and limestone .....	25	722
Limestone, brown, sandy, (blk. sul. s. w.) ....	68	790
Black sulphur lime, very hard .....	25	815
Limestone, blue .....	..	...

## PIKE COUNTY.

Production: Small oil and gas. Producing Sands: Pottsville (Pennsylvanian); and Maxton (Mauch Chunk age) (Mississippian).

### Log No. 962

Big Sandy Co., No. 1, owner and operator. Location: John Moore's Branch,  $\frac{1}{4}$  mile from Elkhorn City, Elkhorn Creek, Pike County, Ky. Elevation of Lower Elkhorn Coal at this point, 1,500 feet approx. Drilling stopped at 918 feet, Nov. 21, 1912. Re-commenced and completed to 1,223 feet in 1920. Production: 10 gal. green crude oil daily. Casing head elevation: 1,000 A. . Approx. Authority: Big Sandy Co. and L. Beekner.

### Strata.

Pennsylvanian System.	Thickness	Depth
Clay .....	6	6
Sand .....	4	10
Shale .....	4	14
Sand .....	4	18
Coal, (Auxier Seam) .....	2	20
Sand .....	20	40
Sand and shale .....	23	63
Shale, (ran core drill) .....	2	65
Sand, hard, (10 in. casing 70) .....	5	70
Limestone, sandy .....	20	90
Shale .....	11	101
Coal (8 in.) (Little Cedar Seam) and shale (core 101) .....	2	103



#### AN IMPORTANT KENTUCKY (OIL) "SAND"

The massive Pottsville Conglomerate is not a large flush producer, but one of extremely long life, as evidenced by Floyd County wells drilled in 1891. These Pottsville cliffs are at Grahn, Carter County, Kentucky.



Pennsylvanian System.	Thickness	Depth
Shale, black .....	7	110
Sand, gray, hard, (total depth May 31, 1919) .....	5	115
Sand, gray .....	6	121
Limestone, sandy .....	5	126
Sand, gray, (50,000 cu. ft. gas at 169) .....	44	170
Limestone, sandy .....	5	175
Shale .....	15	190
Shale, (indication coal 228, ran core drill) ..	38	228
Coal, (Ellswick Seam) .....	2	230
Limestone, sandy .....	6	236
Shale .....	59	295
Sand .....	275	570
Coal, (Gilbert or Grundy Seam) .....	2 1/2	572 1/2
Shale .....	60	632 1/2
Sand .....	233 1/2	866
Sand, (oil show) .....	4	870
Shale and coal. (Jaegar Seam) .....	6	876
Sand and rotten shale .....	17	893
Sand, hard, and shale .....	2	895
Sand, hard .....	3	898
Limestone, very hard .....	2	900
Sand, rotten, (4 gals. oil) .....	2 1/2	902 1/2
Sand, hard and white .....	7 1/2	910
Sand, white, hard .....	8	918
Sand, hard, white .....	5	923
Sand, hard, white .....	10	933
Sand, hard, changing to blue .....	15	948
Sand, bluish .....	17	965
Sand and shale, soft .....	17	982
Shale and rotten shaly sand .....	42	1,024
Sand, hard .....	36	1,060
Sand, shaly .....	20	1,080
Sand, hard, white, (show of oil 1,129) .....	55	1,135
Shale, black .....	14	1,149
Shale, black and gray, coal (Sewall Seam) ..	71	1,220
Sand, hard, gray, (gas and oil 1,223) .....	3	1,223
Total depth .....		1,223

DRILLERS NOTE—Broke pin off at 299 feet; crooked hole from 299 to 308 feet. The record is all in the Pottsville. Set: 8 1/4 casing 379 feet; 6 1/4 casing 794 feet; packed on bottom 6 1/4 casing.

## Log No. 963

T. J. Williamson. No. 1, lessor. Location: Pikeville, Ky. Well completed: May 29, 1920. Drilled by A. B. Brode & Son. Tool Pusher: S. L. Anderson. Drillers: J. T. O'Laughlin and L. E. Smith.

## Strata.

Pennsylvanian System.	Thickness	Depth
Drift, (12½ in. casing) .....	37	37
Sand .....	75	112
Shale, (10 in. casing 133) .....	28	140
Limestone, black .....	23	163
Shale and sand, broken .....	177	350
Sand, salt, sand .....	300	650
Shale .....	46	696
Sand, salt (2nd), hard .....	39	735
Coal and shale .....	2	737
Sand, salt, (gas 800 and 840) .....	115	852
Shale .....	2	854
Sand, salt .....	130	984
Shale, (8 in. casing 987½) .....	7	991
Limestone, dark .....	20	1,011
Sand, white .....	74	1,085
Shale, light .....	40	1,125
Sand, white .....	35	1,160
Shale .....	5	1,165
Sand, hard .....	10	1,175
Limestone, black .....	11	1,186
Shale, light .....	6	1,192
Mississippian System.		
Red rock .....	20	1,212
Limestone, sandy .....	10	1,222
Red rock .....	30	1,252
Sand, dark .....	23	1,275
Shale .....	5	1,280
Limestone, dark .....	20	1,300
Shale and sand .....	20	1,320
Sand, white .....	21	1,341
Shale, white .....	14	1,355
Sand, shells .....	5	1,360
Shale, white .....	7	1,367
Sand (Maxon) .....	87	1,454
Limestone, black .....	90	1,544
Shale and limestone .....	30	1,574
Limestone (Little Lime) .....	19	1,593
Limestone (Big Lime) (6½ casing 1,800) ...	200	1,793
Sandstone (Big Injun) .....	35	1,828
Sand (Squaw) .....	20	1,848

	Thickness	Depth
Mississippian System.		
Shale and shells .....	23	1,871
Red rock .....	15	1,886
Shale and shells .....	12	1,898
Sand, white, and limestone .....	100	1,998
Shale and shells .....	102	2,100
Sand, shelly .....	18	2,118
Shale .....	23	2,141
Shale and shells .....	60	2,201
Devonian System.		
Shale, brown, and slate .....	106	2,307
Sandstone .....	38	2,345
Shale and slate .....	20	2,365
Total depth .....		2,365

### POWELL COUNTY.

Production: Oil and Gas. Producing Sand: Corniferous (Devonian),  
Niagaran (Silurian).

#### Log No. 964

Williams, No. 2, lessor. Location: Northeast edge of Stanton.  
Production: 2 bbls. oil; gas at 156.

Strata.

	Thickness	Depth
Devonian System.		
Shale, black (Chattanooga) and soil .....	132	132
Fire clay and shale .....	18	150
Limestone (Irvine Sand) .....	7	157
Shale, light .....	58	215
Limestone "sand," (oil) .....	8	223
Shale, light .....	17	240
Limestone, sandy (?) .....	5	245
Total depth .....		245

#### Log No. 965

Will Aiam, No. 1, lessor. Location: Near Xena P. O. Authority:  
Lucien Beekner and Dr. I. T. Rogers.

Strata.

	Thickness	Depth
Pennsylvanian System.		
Sand and shale .....	400	400
Devonian System.		
Shale, black (Chattanooga) .....	150	550
Limestone (Corniferous) .....	60	610
Total depth .....		610

**Log No. 966**

Wix Day, No. 1, lessor. Completed: April 5, 1905. Production: Well was dry; show of gas at 134 feet; the casing was pulled and well plugged and abandoned. Authority: New Domain Oil & Gas Co.

## Strata.

Mississippian System.	Thickness	Depth
Soil and gravel, red and loose .....	18	18
Sandstone, blue, soft .....	77	95
Sandstone, blue, firm .....	23	118
Shale, blue, soft .....	9	127
Shale, blue, hard .....	3	130
Sandstone, blue, hard .....	4	134
Sandstone, blue, firm .....	19	153
Lime shells, blue, hard .....	1	154
Shale, blue, hard .....	30	184
Shale, blue, soft .....	16	200
Limestone, blue, hard .....	6	206

## Devonian System.

Shale, black, hard, (Chattanooga) .....	50	256
Shale, brown, firm, (Chattanooga) .....	94	350
Shale (fire clay), light, soft .....	8	358
Limestone "sand," gray, hard, (gas) .....	39	397
Shale, hard, blue, soft .....	3	400
Total depth .....		400

**Log No. 967**

J. G. Skidmore, No. 1, lessor. Commenced: Feb. 3, 1905. Production: Dry. Authority: New Domain Oil & Gas Co.

## Strata.

Mississippian System.	Thickness	Depth
Soil, soft .....	7	7
Gravel, blue, soft .....	1	8
Sandstone, blue, hard .....	18	26
Shale, blue, soft .....	50	76
Shale, light, soft .....	79	155
Limestone and shells, blue, hard .....	4	159
Shale, light, hard .....	10	169
Shale, blue, very hard .....	2	171

Mississippian System.	Thickness	Depth
Shale, light, soft .....	89	260
Sandstone, red, hard .....	10	270
Shale, light, soft .....	39	309
Limestone, blue hard .....	3	312

## Devonian System.

Shale, black, soft (Chattanooga) .....	145	457
Shale, hard, blue, soft .....	10	467
Limestone "sand," (gas) open .....	31	498
Total depth .....		498

## Log No. 968

J. S. Skidmore, No. 2. Completed: March 22, 1905. Production:  
gas. Authority: New Domain Oil & Gas Co.

## Strata.

Mississippian System.	Thickness	Depth
Soil and gravel, blue, soft .....	9	9
Shale, blue soft .....	30	39
Limestone, light, hard .....	6	45
Shale, blue, soft .....	37	82
Limestone, light, hard .....	13	95
Shale, light, soft .....	45	140
Shale, blue, medium .....	30	170
Shale, light, soft .....	44	214
Shale (red rock), soft .....	8	222
Shale, light, soft .....	35	257
Sandstone, light, hard .....	3	260
Shale, light, soft .....	2	262

## Devonian System.

Shale, black, soft (Chattanooga) .....	151	413
Shale (fire clay), white, soft .....	8	421
Limestone "sand," light, open, (gas) .....	18	439
Total depth .....		439

**Log No. 969**

Cornelia Wymore, No. 1, lessor. Completed: Sept. 28, 1904. Production: Dry; small show of oil at 338 feet. Authority: New Domain Oil & Gas Co.

## Strata.

Mississippian System.	Thickness	Depth
Clay, soft .....	12	12
Shale, soft, blue .....	165	177
Shale, soft, pink .....	10	187
Limestone, blue, hard .....	8	195
Shale, soft, blue .....	10	205

## Devonian System.

Shale, black, soft (Chattanooga) .....	133	338
Limestone, gray, hard .....	20	358
Limestone, blue, soft, shaly .....	160	518
Limestone, blue, hard .....	45	563
Limestone, gray, hard .....	20	583
Limestone, blue, hard .....	245	828
Total depth .....		828

NOTE—The Devonian-Silurian contact is within the 160 feet above 518 feet in depth.

**Log No. 970**

Joseph Willoughby, No. 1, lessor. Completed: Oct. 22, 1904. Production: Dry; show of gas at 120 and 418 feet. Authority: New Domain Oil & Gas Co.

## Strata.

Mississippian System.	Thickness	Depth
Clay and gravel .....	8	8
Shale, soft .....	40	48
Shale or sandstone, blue ....	85	133
Sandstone, blue, soft, shaly .....	117	250

## Mississippian System.

Shale, black (Chattanooga) .....	140	390
Fire clay .....	10	400
Limestone, brown, hard .....	18	418
Shale, soft, limy .....	157	575
Limestone, brown, medium .....	15	590
Shale, soft .....	10	600

Mississippian System.	Thickness	Depth
Limestone, brown, hard .....	10	610
Limestone, blue, hard .....	20	630
Shale, soft .....	10	640
Limestone, blue, hard .....	160	800
Total depth .....		800

NOTE—The Devonian-Silurian contact is within the 157 feet above 575 feet.

### Log No. 971

M. D. Rogers, No. 1, lessor. Commenced: Dec. 10, 1919. Completed: Jan. 18, 1920. Production: Commenced Jan. 28, 1920; production 48 hours after shot, 15 bbls. oil. Shot Jan. 25, 1920, between 766 and 790 feet. Authority: The Ohio Oil Co.

#### Strata.

Mississippian System.	Thickness	Depth
Soil, brown, soft .....	20	20
Sandstone, red, medium .....	49	67
Limestone, hard, white .....	90	157
Shale, blue, medium .....	412	569
Shale, red, hard, sandy .....	18	587
Fire clay, white, soft .....	32	619

#### Devonian System.

Shale, hard, brown (Chattanooga) .....	142	761
Fire clay, white, soft .....	4	765
Limestone "sand," hard, dark, (little oil) ...	8	773
Limestone "sand," brown, medium, (good pay) .....	16	789
Shale, hard, blue, soft .....	12	801
Total depth .....		801

### Log No. 972

M. D. Rogers, No. 2, lessor. Commenced: Feb. 8, 1919. Completed: Feb. 24, 1919. Production: Commenced Feb. 28, 1919; production 48 hours after shot, 24 bbls. oil. Shot Feb. 26, 1919, between 768 and 790 feet. Authority: The Ohio Oil Co.

#### Strata.

Mississippian System.	Thickness	Depth
Soil, red, soft .....	20	20
Sandstone, red, hard .....	20	40

Mississippian System.		Thickness	Depth
Limestone, hard, white .....		110	150
Shale, hard and soft, bluish, medium .....		460	610
Shale, red, soft, sandy .....		15	625
Fire clay, white, soft .....		27	652
Devonian System.			
Shale, brown, medium (Chattanooga) .....		105	757
Fire clay, white, soft .....		3	760
Limestone "sand," hard, black .....		8	768
Limestone "sand," brown, soft, (oil) .....		22	790
Shale, hard, blue, soft .....		10	800
Total depth .....			800

**Log No. 973**

M. D. Rogers, No. 3, lessor. Commenced: March 8, 1919. Completed: April 5, 1919. Production: Commenced producing April 10, 1919; production 48 hours after shot, 15 bbls. oil. Shot April 8, 1919, between 755 and 771 feet. Authority: The Ohio Oil Co.

## Strata.

Mississippian System.		Thickness	Depth
Soil, red, soft .....		10	10
Sandstone, red, hard .....		20	30
Limestone, hard, white .....		102	132
Shale, hard and soft, bluish, medium .....		436	568
Shale, red, soft, sandy .....		12	580
Devonian System.			
Shale, brown, soft (Chattanooga) .....		150	730
Fire clay, white, soft .....		17	747
Limestone "sand," hard, brown .....		30	777
Total depth .....			777

**Log No. 974**

Joe Mullins, No. 4, lessor. Commenced: Dec. 15, 1918. Completed: Feb. 26, 1919. Production: Commenced producing Feb. 28, 1919; natural production after 48 hours, 3 bbls. oil. No shot. Authority: The Ohio Oil Co.

## Strata.

Mississippian System.		Thickness	Depth
Soil, red, soft .....		6	6
Shale (red rock), hard .....		82	88
Limestone, hard, white .....		140	228



Mississippian System.	Thickness	Depth
Shale, hard and soft, blue, medium .....	520	748
Shale, red, soft, sandy .....	18	766
Fire clay, white, soft .....	14	780
Devonian System.		
Shale, brown, medium (Chattanooga) .....	80	860
Fire clay, white, soft .....	8	868
Limestone "sand," black, medium .....	10	878
Total depth .....		878

NOTE—The Devonian (Chattanooga) black shale is usually thin at 80 feet in this record.

### Log No. 975

J. B. Rogers, No. 5, lessor. Commenced: April 19, 1919. Completed: May 6, 1919. Production: Commenced producing May 10, 1919; production 48 hours after shot, 8 bbls. oil. Shot May 7, 1919, between 707 and 731 feet. Authority: The Ohio Oil Co.

#### Strata.

Mississippian System.	Thickness	Depth
Soil, red, soft .....	8	8
Limestone, hard, white .....	80	88
Shale, hard, soft, bluish, medium .....	420	508
Shale, red, soft, sandy .....	12	520
Fire clay, white, soft .....	16	536
Devonian System.		
Shale, brown, medium (Chattanooga) .....	148	684
Fire clay, white, soft .....	12	696
Limestone "sand," hard, dark, (no oil) .....	11	707
Limestone "sand," gray, medium, (some oil) .....	24	731
Total depth .....		731

### Log No. 976

J. N. Rogers, No. 1, lessor. Commenced: Dec. 20, 1918. Completed: Jan. 18, 1919. Production: 48 hours after shot, 12 bbls. oil. Shot Jan. 25, 1919, between 783 and 759 feet. Authority: The Ohio Oil Co.

#### Strata.

Mississippian System.	Thickness	Depth
Soil, brown, soft .....	20	20
Sandstone, red, soft .....	50	70
Shale, hard, white, blue, soft .....	85	155

## Mississippian System.

	Thickness	Depth
Shale and shells, blue and soft .....	400	555
Shale, red, hard, sandy .....	12	567
Fire clay, white, soft .....	24	591

## Devonian System.

Shale, brown, soft (Chattanooga) .....	136	727
Fire clay, white, soft .....	4	731
Limestone "sand," hard, black .....	8	739
Limestone "sand," brown, soft .....	24	763
Shale, hard, blue, soft .....	5	768
Total depth .....		768

## Log No. 977

J. N. Rogers, No. 2, lessor. Commenced: Feb. 5, 1919. Completed: Feb. 22, 1919. Production: Commenced producing Feb. 28, 1919; production 48 hours after shot, 11 bbls. oil. Shot Feb. 25, 1919, between 740 and 746 feet. Authority: The Ohio Oil Co.

## Strata.

## Mississippian System.

	Thickness	Depth
Soil, light, soft .....	20	20
Sandstone, red .....	50	70
Limestone, hard, white .....	80	150
Shale and slate, blue, medium .....	450	600
Shale (red rock), soft .....	12	612
Fire clay, white, soft .....	23	635

## Devonian System.

Shale, brown (Chattanooga) .....	95	730
Fire clay, white, soft .....	4	734
Limestone "sand," brown .....	27	761
Shale, hard, blue, medium .....	9	770
Total depth .....		770

NOTE—The Devonian (Chattanooga) black shale at 95 feet is somewhat thin in this record.

**Log No. 978**

J. N. Rogers, No. 3, lessor. Commenced: March 6, 1919. Completed: March 26, 1919. Production: Commenced producing April 1, 1919; production 48 hours after shot, 10 bbls. oil. Shot March 27, 1919, between 817 and 841 feet. Authority: The Ohio Oil Co.

## Strata.

Mississippian System.	Thickness	Depth
Soil, yellow, soft .....	20	20
Sandstone, hard, white .....	75	95
Limestone, white, very hard .....	80	175
Shale, hard, blue .....	450	625
Shale, red, soft, sandy .....	25	650
Devonian System.		
Shale, brown, soft (Chattanooga) .....	150	800
Fire clay, white, medium .....	10	810
Limestone "sand," hard, dark, (gas sand) .....	13	823
Limestone "sand," brown, medium, (oil sand) .....	18	841
Shale, hard, blue, soft .....	5	846
Total depth .....		846

**Log No. 979**

J. N. Rogers, No. 4, lessor. Commenced: April 9, 1919. Completed: April 19, 1919. Production: Dry. Authority: The Ohio Oil Co.

## Strata.

Mississippian System.	Thickness	Depth
Soil, red, soft .....	12	12
Shale (red rock), medium .....	36	48
Limestone, hard, white .....	88	136
Shale, hard and soft .....	480	616
Shale, red, soft, sandy .....	12	628
Devonian System.		
Shale, brown, medium (Chattanooga) .....	140	768
Fire clay, white, soft .....	12	780
Limestone "sand," light, hard, (all salt water) .....	32	812
Total depth .....		812

**Log No. 980**

W. Adams, No. 9, lessor. Commenced: Dec. 20, 1918. Completed: Jan. 22, 1919. Production: Commenced producing Jan. 27, 1919; production 48 hours after shot, 25 bbls. oil. Authority: The Ohio Oil Co.

## Strata.

Mississippian System.	Thickness	Depth
Sand, pink .....	40	40
Limestone, hard, white .....	106	146
Shale, hard, white .....	457	603
Shale, hard, pink .....	12	615
Shale, hard, white .....	28	643
Devonian System.		
Shale, hard, brown (Chattanooga) .....	132	775
Shale, white, soft .....	8	783
Limestone "sand," white .....	32	815
Limestone "sand," pink .....	6	821
Limestone "shale," white, medium .....	6	827
Total depth .....		827

**Log No. 981**

W. Adams, No. 10, lessor. Commenced: Feb. 3, 1919. Completed: Feb. 18, 1919. Production: Commenced producing Feb. 21, 1919; production 48 hours after shot, 25 bbls. oil. Authority: The Ohio Oil Co.

## Strata.

Mississippian System.	Thickness	Depth
Sand, pink .....	20	20
Limestone, hard, white .....	110	130
Shale, hard, white .....	451	581
Shale, hard, pink .....	12	593
Shale, hard, white .....	28	621
Devonian System.		
Shale, brown (Chattanooga) .....	132	753
Shale, white, soft .....	8	761
Limestone "sand," white .....	33	794
Shale, white .....	4	798
Total depth .....		798

**Log No. 982**

W. Adams, No. 12, lessor. Commenced: June 12, 1919. Completed: June 21, 1919. Production: Commenced producing July 4, 1919; production 48 hours after shot, 12 bbls. oil. Authority: The Ohio Oil Co.

## Strata.

Mississippian System.	Thickness	Depth
Soil, red, soft .....	10	10
Limestone, hard, white .....	90	100
Shale and slate, blue .....	365	465
Shale (red rock), soft .....	28	493
Fire clay, white, soft .....	17	510
Devonian System.		
Shale, black, medium (Chattanooga) .....	143	653
Fire clay, white, soft .....	8	661
Limestone "sand," dark, medium .....	31	692
Total depth .....		692

**Log No. 983**

Dana Lumber Co., No. 1, lessor. Commenced: Jan. 28, 1918. Completed: April 8, 1918. Production: Dry. Authority: The Wood Oil Co.

## Strata.

Mississippian System.	Thickness	Depth
Sandstone, shale, etc. ....	563	563
Devonian System.		
Shale, black (Chattanooga) .....	160	723
Fire clay .....	12	735
Limestone "sand," blue and brown, (no oil) .....	4	739
Limestone "sand," lighter and finer .....	4	743
Limestone "sand," (fine white water) .....	11	754
Limestone "sand," light and fine, (skim of oil) .....	6	760
Limestone "sand," yellow, muddy, (oil smell) .....	9	769
Limestone "sand," (filled 300 ft. with salt water) .....	9	778
Limestone "sand," fine, red .....	5	783
Shale, soft, blue .....	4	787
Total depth .....		787

**Log No. 984**

G. B. Caudill, No. 4, lessor. Location: On Hatton Creek, 3 miles south of Stanton. Casinghead Alt.: 720 feet, Bar. Top of Big Lime: 1,230 feet, Bar. Authority: F. W. Caldwell.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	10	10 "
Shale .....	95	105
Shale, red, sandy .....	21	126
Limestone, white .....	58	184
Devonian System.		
Shale, black (Chattanooga) .....	95	279
Limestone (Irvine) .....	11	290
Silurian System.		
Shale, green .....	70	360
Limestone "sand," green, (pay) .....	$\frac{1}{2}$	360 $\frac{1}{2}$
Shale, blue .....	36 $\frac{1}{2}$	397
Limestone .....	43	440
Total depth .....		440

NOTE—The Devonian (Irvine-Corniferous) limestone at 11 feet is very thin in this record.

**Log No. 985**

Miller, Prewitt, Goff, No. 20, lessors. Petroleum Exploration Co., lessee. Location: Headwaters of South Fork of Red River. Completed: March 3, 1918. Authority: Petroleum Exploration Co.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	15	15
Shale, soft .....	82	97
Sandstone and shale .....	520	617
Devonian System.		
Shale, black (Chattanooga) .....	126	743
Fire clay .....	15	758
Limestone "sand," (oil) .....	5	763
Limestone "sand" .....	8	771
Total depth .....		771

NOTE—The two Miller, Prewitt and Goff Land Co. tracts of 1,300 acres and 3,000 acres, totaling 4,300 acres, are located in Powell, Estill and Lee Counties on the headwaters of South Fork and Big Sinking Creeks. The location of the wells of the following eleven records is on the head of the South Fork of Red River in Powell County.

**Log No. 986**

Miller, Prewitt, Goff, No. 21, lessors. Petroleum Exploration Co., lessee. Commenced: Feb. 27, 1918. Completed: March 9, 1918. Authority: The Petroleum Exploration Co.

Strata.		
Pennsylvanian System.		Thickness Depth
Sandstone and shale .....	240	240
Mississippian System.		
Limestone (Big Lime) .....	155	395
Sandstone and shale .....	495	890
Devonian System.		
Shale, black (Chattanooga) .....	145	1,035
Fire clay .....	13	1,048
Limestone "sand" .....	16	1,064
Total depth .....		1,064

**Log No. 987**

Miller, Prewitt, Goff, No. 22, lessors. Petroleum Exploration Co., lessee. Commenced: Feb. 16, 1918. Completed: Feb. 26, 1918. Authority: The Petroleum Exploration Co.

Strata.		
Pennsylvanian System.		Thickness Depth
Sandstone and shale .....	95	95
Mississippian System.		
Limestone (Big Lime) .....	159	254
Sandstone and shale .....	456	710
Devonian System.		
Shale, black (Chattanooga) .....	130	840
Fire clay .....	15	855
Limestone "sand" .....	13	868
Total depth .....		868

**Log No. 988**

Miller, Prewitt, Goff, No. 23, lessors. Petroleum Exploration Co., lessee. Commenced: Feb. 25, 1918. Completed: March 14, 1918. Authority: Petroleum Exploration Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sandstone and shale .....	260	260
Mississippian System.		
Limestone (Big Lime) .....	140	400
Sandstone and shale .....	455	855
Shale, red, sandy .....	15	870
Sandstone and shale .....	40	910
Devonian System.		
Shale, black (Chattanooga) .....	130	1,040
Fire clay .....	16½	1,056½
Limestone "sand" .....	17½	1,074
Total depth .....		1,074

**Log No. 989**

Miller, Prewitt, Goff, No. 24, lessors. Petroleum Exploration Co., lessee. Commenced: March 5, 1918. Completed: March 16, 1918. Authority: Petroleum Exploration Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sandstone and shale (Pottsville) .....	150	150
Mississippian System.		
Limestone (Big Lime) .....	100	250
Sandstone and shale .....	465	715
Shale, red, sandy .....	6	721
Sandstone and shale .....	24	745
Devonian System.		
Shale, black (Chattanooga) .....	135	880
Fire clay .....	20	900
Limestone (cap rock) .....	3	903
Limestone "sand," (oil) .....	13½	916½
Total depth .....		916½



## Log No. 990

Prewitt, Miller, Goff, No. 41, lessors. Petroleum Exploration Co., lessee. Commenced: Dec. 6, 1918. Completed: Feb. 30, 1919. Authority: Petroleum Exploration Co.

Strata.		
Pennsylvanian System.		Thickness Depth
Soil .....	7	7
Sandstone and shale (Pottsville) .....	428	435
Mississippian System.		
Limestone .....	15	450
Limestone, sandstone and shale .....	485	935
Devonian, Silurian Systems.		
Shale, brown (Chattanooga) .....	130	1,065
Fire clay .....	13	1,078
Limestone (cap rock) .....	4	1,082
Limestone "sand," (oil 1,088, salt water 1,114) .....	121	1,203
Shale, hard, white .....	22	1,225
Shale, pink, limy .....	75	1,300
Shale, hard, white .....	30	1,330
Shale, pink, limy .....	35	1,365
Ordovician System.		
Limestone, gray .....	7	1,372
Shale, hard, white .....	8	1,380
Shale, red, limy .....	10	1,390
Limestone, gray .....	20	1,410
Limestone and sand .....	25	1,435
Shale, white .....	55	1,490
Shale, gray .....	42	1,532
Shale, blue .....	68	1,600
Limestone .....	50	1,650
Shale, gray .....	65	1,715
Shale, hard, white .....	20	1,735
Limestone .....	283	2,018
Limestone, black .....	17	2,035
Shale, black .....	75	2,110
Total depth .....		2,110

NOTE—The Devonian-Silurian contact is within the upper half of the 121 feet of limestone above 1,203 feet in depth.

Log No. 991

Prewitt, Miller, Goff, No. 42, lessors. Petroleum Exploration Co., lessee. Commenced: Jan. 8, 1920. Completed: Feb. 13, 1920. Production: Show for about 8 bbls. oil. Authority: Petroleum Exploration Co.

Strata.

Pennsylvanian System.	Thickness	Depth
Soil and mud .....	35	35
Sand .....	25	60
Shale, soft .....	50	110
Mississippian System.		
Limestone (Big Lime) .....	120	230
Shale, hard, green .....	30	260
Shale, soft, and sandstone .....	465	725
Devonian System.		
Shale, black (Chattanooga) .....	140	865
Fire clay .....	10	875
Shale, hard .....	10	885
Fire clay .....	5	890
Shale, hard .....	3	893
Limestone (cap rock) and "sand," (oil pay, good) .....	97	990
Shale .....	13	1,003
Limestone, gray .....	8	1,011
Total depth .....		1,011

Log No. 992

Prewitt, Miller, Goff, No. 45, lessors. The Petroleum Exploration Co., lessee. Commenced: March 2, 1920. Completed: March 26, 1920. Estimated production: First 24 hours, 2 bbls. oil.

Strata.

Pennsylvanian System.	Thickness	Depth
Shale, soft .....	55	55
Sand .....	20	75
Shale, soft .....	35	110
Mississippian System.		
Limestone (Big Lime) .....	100	210
Shale and sandstone .....	501	711

Devonian System.	Thickness	Depth
Shale, black (Chattanooga) .....	135	846
Fire clay .....	20	866
Limestone "sand," (salt water) .....	15	881
Limestone, black .....	9	890
Shale, hard .....	10	900
Limestone, black .....	6	906
Limestone (water) .....	11	917

#### Silurian System.

Limestone, black .....	28	945
Limestone "sand," (oil) .....	33	978
Total depth .....		978

NOTE—The lowest oil "pay" in this well is undoubtedly in the Silurian.

#### Log No. 993

Prewitt, Miller, Goff, No. 46, lessors. Petroleum Exploration Co., lessee. Commenced: June 11, 1920. Completed: July 30, 1920. Production: The hole was dry.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	40	40
Limestone (Big Lime) .....	140	180
Shale, blue .....	481	661

#### Devonian System.

Shale, brown (Chattanooga) .....	140	801
Shale, red, sandy .....	20	821
Fire clay .....	15	836
Limestone "sand," (oil show 840) .....	9	845
Limestone, shelly, (oil show 886) .....	41	886
Limestone .....	79	965
Total depth .....		965

#### Log No. 994

Prewitt, Miller, Goff, No. 47, lessors. The Petroleum Exploration Co., lessee. Commenced: June 11, 1920. Completed: June 30, 1920. Estimated production: First 24 hours, 10 bbls. oil.

#### Strata.

Mississippian System.	Thickness	Depth
Soil and shale, hard and black .....	40	40
Limestone (Little Lime) .....	30	70

Mississippian System.		Thickness	Depth
Limestone (Big Lime) .....		100	170
Shale, green .....		34	204
Sandstone and shale .....		456	660
Devonian System.			
Shale, brown (Chattanooga) .....		152	812
Fire clay .....		15	827
Limestone "sand," (water) .....		13	840
Limestone .....		52	892
Limestone, (oil) (pay) .....		25	917
Limestone .....		13	930
Total depth .....			930

**Log No. 995**

Prewitt, Miller, Goff, No. 50, lessors. Petroleum Exploration Co., lessee. Commenced: July 6, 1920. Completed: July 23, 1920. Estimated production: First 24 hours, 10 bbls. oil. Authority: Petroleum Exploration Co.

Strata.		Thickness	Depth
Pennsylvanian System.			
Shale and sandstone (Pottsville) .....		115	115
Mississippian System.			
Limestone (Big Lime) .....		130	245
Sandstone and shale .....		479	724
Devonian System.			
Shale (Chattanooga) .....		140	864
Fire clay .....		20	884
Limestone "sand," (pay 964-983) .....		109	993
Total depth .....			993

**Log No. 996**

Miller, Prewitt, Goff, No. 71, lessors. Petroleum Exploration Co., lessee. Completed: Oct. 18, 1917.

Strata.		Thickness	Depth
Mississippian System.			
Limestone, sandstone and shale .....		610	610
Devonian System.			
Shale, black (Chattanooga) .....		130	740
Fire clay .....		14½	754½
Limestone "sand" .....		14	768½
Total depth .....			768½

**Log No. 997**

Thomas McCoy, No. 2, lessor. The Wood Oil Co., lessee. Commenced: Aug. 3, 1917. Completed: Aug. 18, 1917. Estimated capacity: 15 bbls. oil.

Strata.

	Thickness	Depth
Mississippian and Devonian Systems		
To top of "sand" (Irvine) .....	530	530
Limestone "sand" (Irvine) .....	37	567
Total depth .....		567

**Log No. 998**

Thomas McCoy, No. 3, lessor| The Wood Oil Co., lessee. Commenced: October 8, 1917. Completed: October 27, 1917. Estimated capacity: 15 bbls. oil.

Strata.

	Thickness	Depth
Mississippian and Devonian Systems.		
To top of "sand" (Irvine) .....	685	685
Limestone "sand" (Irvine) .....	33	718
Total depth .....		718

**PULASKI COUNTY.**

Production: Oil and Gas. Producing Sands: Pottsville (Pennsylvanian); Big Lime (Mississippian); Corniferous (Devonian); Niagaran (Silurian); Upper Sunnysbrook, Maysville age (Ordovician).

**Log No. 999**

Newell, No. 1, lessor. Somerset Petroleum Corp., lessee. Location: Fishing Creek, 6 miles N. W. of Somerset. Driller: George Cox. Production: 1 barrel green oil. Authority: W. A. White, General Manager.

Strata.

	Thickness	Depth
Devonian System.		
Soil .....	10	10
Limestone, hard .....	18	28
Silurian System.		
Fire clay .....	10	38
Limestone, oil sand .....	2	40
Shale, brown .....	10	50
Limestone .....	10	60
Limestone and sand, (salt water) .....	5	65
Limestone, gray, (6¼ in. casing at 70) .....	5	70
Limestone .....	11	81
Oil sand .....	10	91
Limestone .....	3	94
Total depth .....		94

**Log No. 1000**

Newell, No. 1, lessor. Somerset Petroleum Corp., lessee. Location: Fishing Creek, 6 miles N. W. of Somerset. Driller: George Cox. Production: 1 barrel green oil. Authority: W. A. White, General Manager.

## Strata.

Devonian System.	Thickness	Depth
Soil .....	9	9
Limestone, hard .....	18	27
Silurian System.		
Fire clay .....	10	37
Oil sand .....	2	39
Shale, brown .....	11	50
Limestone .....	5	55
Limestone, gray, and sand, (6¼" casing 65) .....	10	65
Limestone .....	15	80
Oil sand .....	10	90
Limestone .....	12	102
Total depth .....		102

**Log No. 1001**

A. J. Spaugh, No. 1, lessor. Somerset Petroleum Corp., lessee. Location: Fishing Creek, 6 miles N. W. of Somerset. Driller: George Cox. Production: 1 barrel green oil. Authority: W. A. White, General Manager.

## Strata.

Devonian System.	Thickness	Depth
Soil .....	10	10
Limestone, hard .....	20	30
Silurian System.		
Fire clay .....	10	40
Oil sand .....	2	42
Shale, brown, (6¼ in. casing at 65) .....	23	65
Limestone .....	15	80
Oil sand, (first) .....	10	90
Limestone .....	32	122
Oil sand, (second) .....	6	128
Limestone .....	8	136
Oil and sand, (third) .....	16	152
Limestone .....	48	200
Total depth .....		200

**Log No. 1002**

Dun Bogle, No. 1, lessor. Location: 2½ miles southwest of Somerset. Completed: Nov. 28, 1921. Casing head elevation: 859 feet. Authority: Mr. Bee Whitis, Box 510, Somerset, Ky.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	4	4
Limestone, hard, gray .....	46	50
Limestone, brown .....	40	90
Limestone, dark .....	28	118
Sandstone, brown grit, (some gas) .....	12	130
Limestone, gray, hard .....	35	165
Limestone, broken .....	35	200
Shale, blue .....	130	330
Devonian System.		
Shale, black (Chattanooga) .....	51	381
Limestone, (Irvine "sand"), (some oil) ....	8	389
Shale, blue, soft .....	19	408
Silurian System.		
Limestone, soft, blue, shaly .....	16	424
Total depth .....		424

**ROCKCASTLE COUNTY.**

Production: Oil and Gas shows. Producing Sands: Big Lime (Chester-Mississippian); Corniferous (Devonian).

**Log No. 1003**

Albert Albright, No. 1, lessor. New Domain Oil & Gas Co., lessee. Completed: Aug. 19, 1904. Production: Dry. Authority: New Domain Oil & Gas Co.

## Strata.

Mississippian System.	Thickness	Depth
Gravel .....	15	15
Limestone, blue, open .....	91	106
Limestone, blue, hard (New Providence) ....	85	191
Devonian System.		
Shale, black, soft (Chattanooga) .....	50	241
Fire clay, soft, white .....	10	251
Limestone "sand" (Ragland), hard .....	20	271
Limestone, white, hard .....	220	491
Limestone, gray, hard .....	112	603
Total depth .....		603

NOTE—The Devonian-Silurian contact is within the upper quarter of the 220 feet of limestone above 491 feet in depth. The Silurian-Ordovician contact is toward the middle of the lower part of the 112 feet of limestone above 603 feet in depth.

**Log No. 1004**

William Hepinger, No. 1, lessor. New Domain Oil & Gas Co., lessee. Completed: Sept. 6, 1904. Production: Dry. Authority: New Domain Oil & Gas Co.

Strata.

Mississippian System.	Thickness	Depth
Gravel .....	5	5
Limestone, white, hard .....	20	25
Shale, blue, soft .....	50	75
Limestone, gray, hard .....	70	145
Limestone shells .....	155	300
Devonian System.		
Shale, black, soft (Chattanooga) .....	84	384
Limestone shells and shale, soft .....	126	510
Limestone, hard .....	97	607
Total depth .....		607

NOTE—The Devonian-Silurian contact is within the upper half of the 126 feet of limestone above 510 feet.

**Log No. 1005**

J. E. Tate & Co., No. 1, lessors. Completed: Aug. 8, 1904. Production: Dry; casing pulled, well plugged and abandoned. Authority: New Domain Oil & Gas Co.

Strata.

Mississippian System.	Thickness	Depth
Soil and gravel, yellow .....	10	10
Limestone, white, blue, hard .....	60	70
Shale, blue, soft .....	35	105
Limestone, gray, hard .....	60	165
Shale, blue, soft .....	105	270
Limestone, white, hard .....	8	278
Shale, blue, green, soft (New Providence) ...	82	360
Devonian System.		
Shale, black, soft, hard (Chattanooga) .....	94	454
Shale, blue, soft .....	45	499
Shale, pink, soft .....	15	514
Limestone shells, blue, white, soft .....	45	559
Silurian System.		
Limestone, gray, white, very hard .....	42	601
Sand, gray, very hard .....	12	613
Shale, blue, soft .....	12	625
Total depth .....		625

NOTE—The varicolored shales below the Chattanooga are probably in reality a part of same.



**Log No. 1006**

David Hysinger, No. 1, lessor. New Domain Oil & Gas Co., lessee.  
Completed: Oct. 1, 1904. Production: Dry. Authority: New Domain  
Oil & Gas Co.

Strata.		
Mississippian System.		Thickness Depth
Sand, gravel and mud .....	65	65
Limestone, hard .....	63	128
Shale, soft, sandy .....	117	245
Devonian System.		
Shale, black, hard (Chattanooga) .....	70	315
Shale, limestone and shells .....	81	396
Limestone and shale, soft .....	89	485
Limestone, gray, hard .....	112	597
Total depth .....		597

NOTE—The Devonian-Silurian contact occurs toward the base of the 81 feet of shale and limestone above 396 feet in depth.

**Log No. 1007**

C. L. Lear, No. 1, lessor. Completed: Sept. 20, 1904. Production: Dry. Authority: New Domain Oil & Gas Co.

Strata.		
Mississippian System.		Thickness Depth
Soil and quicksand .....	10	10
Limestone, blue, hard .....	60	70
Shale and shells, soft .....	170	240
Devonian System.		
Shale, brown (Chattanooga) .....	93	333
Shale, blue, soft .....	65	398
Limestone, white, hard .....	100	498
Total depth .....		498

NOTE—The Devonian-Silurian contact occurs toward the base of the upper half of the last 100 feet of this record. The 65 feet of blue shale is probably partly at least Chattanooga.

**Log No. 1008**

B. S. Devault, No. 1, lessor. New Domain Oil & Gas Co., lessee.  
Completed: Sept. 23, 1904. Production: Dry. Authority: New Domain Oil & Gas Co.

Strata.

Mississippian System.	Thickness	Depth
Soil, brown, soft .....	5	5
Limestone, white, hard .....	75	80
Shale, blue, soft .....	250	330
Devonian System.		
Shale, brown, hard (Chattanooga) .....	90	420
Shale, white, soft .....	12	432
Limestone, white, very hard .....	179	611
Total depth .....		611

NOTE—The Devonian-Silurian contact occurs toward the base of the upper one-third of the last 179 feet of limestone of this record.

**ROWAN COUNTY.**

Production: Oil. Producing Sand: Ragland (Corniferous) (Devonian)  
Niagaran (Silurian).

**Log No. 1009**

J. E. Johnson, No. 1, lessor. Location: 4½ miles northwest of Morehead. Commenced: January, 1920. Completed: February, 1920. Production: The hole was dry, and the casing was pulled and plugged. Authority: Mohney Bros. and Brown, drillers.

Strata.

Devonian System.	Thickness	Depth
Gravel .....	25	25
Shale, blue, and shale (Chattanooga) .....	55	80
Shale, blue (Chattanooga) .....	70	150
Shale (Chattanooga) .....	10	160
Shale, blue, and shale (Chattanooga) .....	28	188
Limestone "sand," (Corniferous) .....	5	193
Limestone, white (Corniferous) .....	32	225
Silurian System.		
Shale, blue .....	40	265
Shale, hard, red .....	30	295
Shale, hard, blue .....	55	350
Shale, hard, red .....	25	375
Limestone and shell .....	25	400
Shale, hard, red .....	10	410
Shale, hard, white .....	20	430
Limestone, white .....	20	450
Ordovician System.		
Limestone and shale, hard .....	150	600
Total depth .....		600

**Log No. 1010**

W. J. Fletcher, No. 1, lessor. Location: Near Morehead. Completed: April 27, 1904. Production: Well was dry. Water at 30 and 975 feet. Authority: New Domain Oil & Gas Co.

## Strata.

Mississippian System.	Thickness	Depth
Sand and gravel, brown, soft .....	13	13
Shale, blue, soft .....	10	23
Freestone, blue, hard .....	167	190
Limestone, white, hard .....	50	240
Shale, hard, white, soft .....	45	285
Limestone, white, hard .....	105	390
Shale, white, soft .....	110	500
Shale, brown, soft .....	15	515
Shale, hard, white, soft .....	65	580
Devonian System.		
Shale, brown, soft (Chattanooga) .....	235	815
Fire clay, white, soft .....	10	825
Limestone "sand" (Ragland in part), white, hard .....	105	930
Shale, white, soft .....	30	960
Limestone "sand," white, hard, (gas 975) ..	15	975
Shale, hard, white, soft .....	35	1,010
Shale, red, hard, limy ..	50	1,060
Ordovician System.		
Limestone shells and shale, hard, white, soft	150	1,210
Limestone, white, very hard .....	291	1,501
Total depth .....		1,501

NOTE—The Devonian-Silurian contact is within the first half of the 105 feet of limestone above 930 feet in depth.

**RUSSELL COUNTY.**

Production: Oil and Gas. Producing Sand: Sunnybrook and Trenton (Ordovician).

**Log No. 1011**

E. G. Wilson, No. 1, lessor. Completed: Sept. 22, 1904. Production: Dry. Authority: New Domain Oil & Gas Co.

## Strata.

Mississippian System.	Thickness	Depth
Limestone, light, hard .....	251	251
Devonian System.		
Shale, black, soft (Chattanooga) .....	35	286

Ordovician System.	Thickness	Depth
Limestone "sand," light, hard .....	641	927
Limestone "sand," dark, hard .....	18	945
Limestone "sand," hard .....	5	950
Limestone "sand," light, hard .....	10	960
Limestone "sand," dark, soft .....	3	963
Limestone and shale, hard, dark, soft .....	4	967
Total depth .....		967

### Log No. 1012

Simco Popplewell, No. 1, lessor. New Domain Oil & Gas Co., lessee. Completed: Aug. 23, 1904. Production: Well was dry: casing pulled, well plugged and abandoned. Authority: New Domain Oil & Gas Co.

#### Strata.

Ordovician System.	Thickness	Depth
Limestone, gray, hard .....	175	175
Limestone "sand," white, hard .....	10	185
Limestone, gray, medium .....	440	625
Limestone "sand," gray, soft .....	5	630
Limestone, gray, soft .....	37	667
Limestone "sand," white, hard .....	10	677
Limestone, gray, hard .....	458	1,135
Total depth .....		1,135

### Log No. 1013

J. C. Wilson, No. 1, lessor. Location: Near Steubenville. Completed: Aug. 1, 1904. Production: Well was dry. Authority: New Domain Oil & Gas Co.

#### Strata.

Ordovician System.	Thickness	Depth
Clay .....	5	5
Limestone, white, hard .....	40	45
Limestone, blue, soft .....	400	445
Sand, red, soft .....	5	450
Limestone, blue, soft .....	200	650
Limestone, blue, hard, (oil show 676) .....	26	676
Limestone "sand," blue, gray, hard .....	16	692
Limestone, white, hard .....	106	798
Shale, caving, soft .....	2	800
Limestone, white, hard .....	51½	851
Total depth .....		851½

**Log No. 1014**

Kyle, No. 1, lessor. T. A. Sheridan, lessee. Location: Pumpkin Creek. Commenced: In winter of 1920-21. Elevation: About 640 feet A. T. Starts 2 feet below Chattanooga Shale in the Ordovician Richmond Shale.

## Strata.

Ordovician System.	Thickness	Depth
Limestone, blue .....	598	598
Shale (pencil cave) .....	3	601
Limestone, coarse, light brown .....	39	640
Limestone, coarse, light brown .....	16	656
Limestone, coffee-colored, harder .....	12	668
Shale, blue-black, limy, coarser .....	12	680
Limestone, coffee-colored, coarse .....	8	688
Limestone, dark blue .....	36	724
Limestone, dark brown .....	16	740
Limestone, lighter blue, (gas) .....	4	744
Limestone, light coffee-colored .....	4	748
Total depth .....		748

NOTE—Well unfinished, Jan 7, 1921.

Creelsboro Wells. McMeade Co., lessee. Drilled in 1920.  
Authority: L. Beckner.

**Log No. 1015**

## No. 1.

Starts about 60 feet below base of Chattanooga Shale in the base of the Richmond or top of Maysville. Limestone all the way. Oil at 245 feet, dark blue to brown limestone to 275 feet in depth. This well produces considerable gas. Elevation, 597. Approx.

**Log No. 1016**

## No. 2.

Same as above. Elevation, 595. Approx. Got oil at 246.

**Log No. 1017**

## No. 3.

Same as above. Elevation, 590. Approx. Got oil at 247 feet flowing.

Log No. 1018

No. 4.

Same as above. Elevation, 485, Barometric. Got oil at 255 feet.

No. 2 was tubed for pumping and nothing about it could be learned.

No. 3 is flowing a small trickle of light gassy oil into a trough, about  $\frac{1}{2}$  bbl. a day. It has considerable gas.

No. 4 has oil about 200 feet down from which gas is rising, not as good as No. 1.

Log No. 1019

Bacon No. 1. (Called Creelsboro, No. 5.) Elevation, 610. Approx. Got no oil or sand at same horizon as other wells. Got no oil at 605 feet in depth.

SIMPSON COUNTY.

Production: Oil and Gas. Producing Sands: "Shallow" (St. Louis age) (Mississippian); Corniferous (Devonian); "Deep" (Niagaran age) (Silurian).

Log No. 1020

Henry Reeder, No. 2, lessor. Tidewater Oil Co., Norfolk, Va., lessee. Location: 4 miles northeast of Franklin, and east of Drakes Creek. Production: Considerable gas, and 25 bbls. oil, natural flow to tank 20 feet above casing head. Authority: Barney Calvert.

Strata.

Mississippian System.	Thickness	Depth
Soil .....	10	10
Limestone .....	515	525
Devonian System.		
Shale, black (Chattanooga) .....	50	575
Sand, (gas) .....	4	579
Limestone (cap rock) .....	2	581
Limestone "sand," brown (oil) .....	12	593
Limestone, light .....	2	595
Limestone, blue .....	7	602
Total depth .....		602

**Log No. 1021**

Tom Lewis, No. 1, lessor. Location: Southwest of Rolands Mill in Drakes Creek bottom, 4½ miles northeast of Franklin. Production: Considerable sulphur gas, which flowed open for over a year.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	18	18
Limestone, (first water) .....	107	125
Limestone, (gas) .....	245	370
Limestone .....	130	500
Shale, green .....	40	540
Devonian System.		
Shale, black (Chattanooga) .....	50	590
Limestone .....	10	600
Total depth .....		600

**Log No. 1022**

W. H. Lewis, No. 11, lessor. Location: 2 miles north of Franklin, left of Bowling Green Road. Production: This well was dry.

## Strata.

Mississippian and Devonian Systems.	Thickness	Depth
Limestone and shale, (gas) .....	1,100	1,100
Total depth .....		1,100

**Log No. 1023**

Boyd, No. 1, lessor. McGlothlin, Moore & Co., lessees. Location: 3½ miles south of Franklin. Completed: June 25, 1920. 206 feet of casing set. Authority: Walter Moore.

## Strata.

Mississippian System.	Thickness	Depth
Surface and limestone .....	503	503
Devonian System.		
Shale, black (Chattanooga) .....	57	560
Limestone (cap rock) .....	10	570
Limestone .....	48	618
Silurian System.		
Limestone "sand," (oil) (first pay) .....	32	650
Total depth .....		650

**Log No. 1024**

Boyd, No. 2, lessor. McGlothlin, Moore & Co., lessees. Location: 3½ miles south of Franklin. Completed: Aug. 1, 1920. 205 feet casing set. Authority: Walter Moore.

## Strata.

Mississippian System.	Thickness	Depth
Surface and limestone .....	500	500
Devonian System.		
Shale, black (Chattanooga) .....	61	561
Limestone (cap rock) .....	10	571
Limestone .....	29	600
Limestone "sand," (oil) .....	37	637
Total depth .....		637

**Log No. 1025**

W. M. McGlothlin, No. 2, lessor. Blue Goose Oil Co., lessee. Location: 3¾ miles south of Franklin. Completed: July 20, 1920. 190 feet casing set. Authority: Walter Moore.

## Strata.

Mississippian System.	Thickness	Depth
Surface and limestone .....	492	492
Devonian System.		
Shale, black (Chattanooga) .....	58	550
Limestone (cap rock) .....	9	559
Limestone "sand," (oil at 600) .....	68	627
Total depth .....		627

NOTE—The Devonian-Silurian contact occurs within the last 68 feet of this record.

**Log No. 1026**

J. E. Hagan, No. 1, lessor. Location: 7½ miles east of Franklin, off Gold City Road. Completed: Sept. 29, 1919. Casing set at 149 feet. Water struck at 78 feet. Authority: B. W. Lightburn.

## Strata.

Mississippian System.	Thickness	Depth
Red mud and boulders .....	35	35
Limestone, white, hard .....	104	139
Shale, black, soft, limy .....	55	194



Mississippian System.	Thickness	Depth
Lime rock, dark .....	20	214
Shale, dark, soft, limy .....	10	224
Limestone, gray, hard .....	20	244
Limestone, black, soft .....	5	249
Limestone, white, hard .....	30	279
Limestone, gray, hard .....	55	334
Limestone, gray and white .....	20	354
Sand and limestone, grayish .....	21	375
Shale, green, hard (New Providence).....	30	405
Devonian System.		
Shale, black (Chattanooga) .....	50	455
Limestone and "sand" .....	75	530
Limestone "sand," dark, (oil) .....	29	559
Total depth .....		559

NOTE—The Devonian-Silurian contact is within the 75 feet of limestone above 530 feet in depth. The oil "sand" in the last 29 feet is therefore Silurian.

### Log No. 1027

J. E. Hagan, No. 2, lessor. Location: 7½ miles east of Franklin, off Gold City Road. Authority: B. W. Lightburn.

#### Strata.

Mississippian System.	Thickness	Depth
Clay boulders .....	50	50
Limestone, gray .....	20	70
Oil sand .....	5	75
Limestone, black .....	115	190
Limestone, gray .....	35	225
Limestone, flinty .....	45	270
Limestone, flinty .....	105	375
Shale, green (New Providence) .....	40	415
Devonian System.		
Shale, black (Chattanooga) .....	50	465
Limestone, blue .....	55	520
Silurian System.		
Limestone, gray .....	81	601
Limestone "sand," (oil) .....	9	610
Limestone, white .....	15	625
Limestone, blue .....	10	635
Limestone, white .....	15	650
Total depth .....		650

## Log No. 1028

J. E. Hagan, No. 3, lessor. Location:  $7\frac{1}{2}$  miles east of Franklin, off Gold City Road. Authority: B. W. Lightburn.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	35	35
Limestone, blue .....	15	50
Limestone, brown .....	12	62
Limestone "sand," (oil) .....	18	80
Limestone, blue .....	105	185
Limestone, white, flint .....	80	265
Limestone, blue .....	10	275
Limestone, white .....	105	380
Shale, green .....	35	415
Devonian System.		
Shale, black (Chattanooga) .....	50	465
Limestone, blue .....	15	480
Limestone, white .....	10	490
Silurian System.		
Limestone, brown .....	10	500
Limestone, brown flint .....	96	596
Limestone "sand," (oil) .....	10	606
Total depth .....		606

## Log No. 1029

J. E. Hagan, No. 4, lessor. Corinne Oil & Gas Co., Joplin, Mo., lessee. Location:  $7\frac{1}{2}$  miles east of Franklin, off Gold City Road. Authority: B. W. Lightburn, Field Manager.

## Strata.

Mississippian System.	Thickness	Depth
Clay and boulders .....	7	7
Limestone, soft .....	43	50
Limestone, brown .....	25	75
Limestone, white .....	25	100
Limestone, blue .....	105	205
Limestone, white .....	140	345
Limestone, hard, yellow .....	5	350
Shale, green (New Providence) .....	60	410

Devonian System.	Thickness	Depth
Shale, black (Chattanooga) .....	50	460
Limestone, blue .....	65	525
Limestone, dark blue .....	65	590
Limestone "sand," soft, (oil and sulphur water) .....	10	600
Total depth .....		600

NOTE— The Devonian-Silurian contact occurs about midway in the 65 feet of limestone above 525 feet. The oil is therefore Silurian.

### Log No. 1030

Fowler Mitchell, No. 1, lessor. The Florida-Kentucky Oil Co., lessee. Location: 7½ miles north of Franklin, I. & N. Pike, 100 yards from the Warren-Simpson County line. Completed: Feb. 15, 1920. Authority: E. L. Reep.

Strata.		
Mississippian System.	Thickness	Depth
Limestone .....	863	863
Devonian System.		
Shale, black (Chattanooga) .....	56	919
Limestone (cap rock), (oil) .....	12	931
Limestone "sand," (pay) .....	9	940
Limestone "sand," hard .....	4	944
Limestone "sand," dark, (second pay) .....	9	953
Silurian System.		
Limestone "sand," white .....	67	1,020
Total depth .....		1,020

### Log No. 1031

Anderson, No. 1, lessor. Lick Creek Oil & Gas Co., lessee. Location: 3 miles northeast of Franklin. Production: Gas. Authority: Brady Perdue.

Strata.		
Mississippian System.	Thickness	Depth
Limestone, white and gray .....	490	490
Limestone "sand," brown and red .....	58	548
Devonian System.		
Shale, black (Chattanooga) .....	60	608
Limestone (cap rock) .....	4	612
Limestone .....	122	734
Total depth .....		734

**Log No. 1032**

Chas. Anglea, No. 1, lessor. Location: 1½ miles southeast of Franklin. Commenced: Aug. 19, 1919. Completed: Nov. 12, 1919. Production: Estimated production, 25,000 cu. ft. gas. Authority: Brady Perdue.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	23	23
Limestone .....	382	405
Shale, green (New Providence) .....	40	445
Devonian System.		
Shale, black (Chattanooga) .....	47	492
Limestone (cap rock) .....	3	495
Limestone "sand," (gas) .....	7	502
Limestone "sand" .....	358	860
Total depth .....		860

NOTE—The contact between the Silurian and Devonian Systems occurs in the limestone 358 feet thick.

**Log No. 1033**

Ward Brown, No. 1, lessor. Location:—— Commenced: Nov. 10, 1919. Completed: Nov. 20, 1919. Sulphur water at 70 feet; show of oil and a little gas at 140 feet.

## Strata.

Mississippian System.	Thickness	Depth
Limestone and shale .....	295	295
Devonian System.		
Shale, black (Chattanooga) .....	56	351
Limestone, very white .....	4	355
Limestone, very white dark brown .....	4	359
Limestone, dark brown .....	4	363
Limestone, lead color .....	16	379
Limestone, light brown .....	17	396
Silurian System.		
Limestone, light brown and lead color.....	4	400
Limestone, lead color .....	12	412
Limestone, light brown, fine, very hard .....	8	420
Limestone, gray .....	4	424
Limestone, gray .....	4	428
Total depth .....		428

**Log No. 1034**

Chas. Butt, No. 1, lessor. Location: 4 miles southwest of Franklin. Commenced: May 12, 1920.

Strata.		
Mississippian System.	Thickness	Depth
Limestone and shale .....	438	438
Devonian System.		
Shale, black (Chattanooga) .....	58	496
Limestone .....	62	558
Limestone "sand" .....	30	588
Limestone .....	6	594
Total depth .....		594
Water at 70 and 90 feet.		

NOTE—The Devonian-Silurian contact occurs midway within the 62 feet of limestone above 558 feet in depth.

**Log No. 1035**

Chas. F. Butt, No. 3, lessor. Location: 4 miles southwest of Franklin. Commenced: July 24, 1920. Completed: Aug. 18, 1920. Authority: J. H. Buettner.

Strata.		
Mississippian System.	Thickness	Depth
Limestone and shale .....	460	460
Devonian System.		
Shale, black (Chattanooga) .....	51	511
Limestone, salt and pepper .....	4	515
Limestone, gray .....	12	527
Limestone, sandy .....	24	551
Silurian System.		
Limestone, gray .....	8	559
Limestone "sand," light gray .....	8	567
Limestone "sand," light brown .....	8	575
Limestone, light brown, sandy .....	8	583
Limestone, blue .....	4	587
Limestone .....	17	604
Total depth .....		604
Water at 90 feet.		

**Log No. 1036**

Dunn, No. 1, lessor. Location: 5 miles south of Franklin. Commenced: June 1, 1920. Completed: June 28, 1920. Authority: J. H. Buettner.

Strata.		
Mississippian System.		Thickness Depth
Limestone and shale .....	460	460
Devonian System.		
Shale, black (Chattanooga) .....	54	514
Limestone .....	62	576
Limestone, 'sand' .....	33	609
Total depth .....		609
Water at 75 and 95 feet.		

NOTE—The Devonian-Silurian contact occurs about midway within the 62 feet of limestone above 576 feet in depth.

**Log No. 1037**

O. Harris, No. 1, lessor. Location:  $1\frac{1}{2}$  miles southeast of Franklin. Commenced: July 8, 1919. Completed: Aug. 12, 1919. Authority: Brady Perdue.

Strata.		
Mississippian System.		Thickness Depth
Soil and gravel .....	31	31
Limestone .....	399	430
Shale, green (New Providence) .....	48	478
Devonian System.		
Shale, brown (Chattanooga) .....	42	520
Limestone (cap rock) .....	10	530
Limestone .....	163	693
Total depth .....		693

The casing was pulled and the well abandoned.

**Log No. 1038**

Hughes, No. 1, lessor. Moore & Enders, lessees. Location: 4 miles southeast of Franklin,  $\frac{1}{4}$  mile east of I. & N. Railroad. Commenced: July 23, 1920. Completed: Aug. 19, 1920. Shot: Aug. 23, 1920, 80 quarts. Authority: Walter Moore.

## Strata.

	Thickness	Depth
Mississippian System.		
Limestone and shale .....	460	460
Devonian System.		
Shale, black (Chattanooga) .....	55	515
Limestone .....	5	520
Limestone "sand" .....	20	540
Limestone, blue .....	50	590
Total depth .....		590

**Log No. 1039**

Tom Lewis, No. 1, lessor. Prestonsburg Oil & Gas Co., lessee. Location:  $4\frac{1}{2}$  miles northeast of Franklin, and 1 mile from Reeder pool. Production: Small sulphur gasser. Authority: Tom Lewis.

## Strata.

	Thickness	Depth
Mississippian System.		
Soil .....	18	18
Limestone, (fresh water 125) .....	107	125
Limestone .....	375	500
Shale, green (New Providence) .....	40	540
Devonian System.		
Shale, black (Chattanooga) .....	50	590
Limestone .....	10 (plus)	600 (plus)
Total depth .....		600 (plus)

**Log No. 1040**

Meador, No. 1, lessor. Lick Creek Oil & Gas Co., lessee. Location: 7 miles east of Franklin. Production: Fine gas well. Authority: Brady Perdue.

## Strata.

	Thickness	Depth
Mississippian System.		
Limestone, variable .....	225	225
Limestone "sand," (gas) .....	4	229
Limestone "sand," soft .....	6	235

Mississippian System.		Thickness	Depth
Limestone, white .....		45	280
Limestone, pink .....		5	285
Limestone, white .....		45	330
Limestone, blue, and shells (New Providence)		72	402
Devonian System.			
Shale, black, Chattanooga) .....		48	450
Fire clay .....		13	463
Limestone (cap rock) .....		2	465
Limestone, variable .....		220	685
Total depth .....			685

NOTE—The Devonian-Silurian contact is about 20 feet down in the last 220 feet of limestone. This well finished in the Silurian, or perhaps the top of the Ordovician.

#### Log No. 1041

Pearson, No. 1, lessor. Location: 6 miles northeast of Franklin, on Lick Creek. Authority: Brady Perdue.

#### Strata.

#### Mississippian System.

Limestone, oil 100-108) .....	135	135
Limestone rock .....	163	298
Limestone "sand," (water) .....	7	305
Limestone "sand," dark, (water) .....	6	311
Limestone, blue and hard .....	79	390
Limestone, white .....	20	410
Limestone, blue and soft .....	5	415
Limestone, blue and hard .....	10	425
Limestone, brown and soft, (New Providence)	10	435
Limestone, white and green, (New Providence)	12	447

#### Devonian System.

Shale, black (Chattanooga), (some oil) .....	61	508
Limestone (cap rock) blue, (strong showing of oil) .....	6	514
Limestone "sand," (some showing of oil) ...	7	521
Limestone "sand," light, (oil) .....	2	523
Limestone, light gray .....	37	560
Limestone, gray .....	2	562
Limestone (cap rock), dark gray .....	12	574
Shale, blue, some gumbo .....	21	595
Limestone, dark blue .....	6	601



Devonian System.	Thickness	Depth
Limestone, light blue .....	4	605
Limestone, dark gray .....	10	615
Limestone, gray .....	12	627
Limestone, dark gray .....	6	633
Total depth .....		633

NOTE—The Devonian-Silurian contact is within the 37 feet of limestone above 560 feet in depth.

### Log No. 1042

Pearson, No. 4, lessor. Location: 6 miles east of Franklin, on Lick Creek. Authority: Brady Perdue.

#### Strata.

Mississippian System.	Thickness	Depth
Soil .....	14	14
Limestone, variable .....	461	475
Shale, green .....	5	480

#### Devonian System.

Shale, black (Chattanooga) .....	64	544
Limestone "sand," (oil strong showing) ....	9	553
Limestone, variable .....	72	625
Limestone "sand," (oil, strong showing)....	10	635
Limestone .....	60	695
Total depth .....		695

NOTE—The Devonian-Silurian contact is within the 72 feet above 625 feet in depth.

### Log No. 1043

Pearson, No. 6, lessor. Location: 8 miles of Franklin, on Lick Creek. Authority: Brady Perdue.

#### Strata.

Mississippian System.	Thickness	Depth
Soil .....	31	31
Limestone, blue .....	97	128
Limestone, blue .....	59	187
Limestone, white and fine .....	18	205
Limestone "sand," (oil, small showing) .....	5	210
Limestone, gray, blue and white .....	324	534



#### THE SEBREE SANDSTONE

This oil sand, productive in Union and Henderson counties, Ky., is here shown in the type locality between Sebree and the Green River, north of the Steamport Ferry Road. This is an ideal "sand" course, thick and mediumly cemented.

Devonian System.		Thickness	Depth
Shale, black (Chattanooga) .....		61	595
Limestone (cap rock) .....		5	600
Limestone "sand," (oil) .....		15	615
Limestone, white .....		60	675
Limestone "sand," (oil, good show) .....		15	690
Shale .....		7	697
Total depth .....			697

NOTE—The Devonian-Silurian contact is in the upper half of the 60 feet of limestone above 675 feet in depth.

#### Log No. 1044

O. M. Stringer, No. 2, lessor. Location: About 7 miles west of Franklin, on Sulphur Fork Creek. Commenced: Nov. 22, 1919. Completed: Dec. 22, 1919. Authority: Irvin J. Brown Oil Co.

##### Strata.

Mississippian System.		Thickness	Depth
Limestone and shale .....		320	320
Devonian System.			
Shale, black (Chattanooga) .....		56	376
Limestone, pepper and salt brown .....		8	384
Limestone, light gray .....		8	392
Limestone, lead color .....		8	400
Limestone, muddy brown .....		8	408
Shale, hard, lead colored .....		4	412
Limestone, light brown .....		16	428
Limestone, gray .....		6½	434½
Total depth .....			434½

#### Log No. 1045

O. M. Stringer, No. 6, lessor. Location: 8½ miles east of Franklin, on Middle Fork Creek. Commenced: April 6, 1920. Completed: April 18, 1920. Authority: Glen Neaville.

##### Strata.

Mississippian System.		Thickness	Depth
Soil .....		31	31
Limestone .....		280	311

## Devonian System.

	Thickness	Depth
Shale, black (Chattanooga) .....	50	361
Limestone, pepper and salt .....	8	369
Limestone, muddy and gray .....	20	389
Limestone "sand," muddy and brown .....	8	397

## Silurian System.

Limestone "sand," light brown .....	12	409
Limestone "sand," dark brown, (oil show) ..	16	425
Limestone "sand," lead color .....	4	429
Limestone, light gray and white .....	4	433
Limestone "sand," brown sugar, (oil show) ..	16	449
Limestone "sand," brown and gray .....	8	457
Total depth .....		457

## Log No. 1046

O. M. Stringer, No. 7, lessor. Location:  $8\frac{1}{2}$  miles east of Franklin, on Middle Fork Creek. Commenced: April 15, 1920. Completed: April 23, 1920. Authority: Glen Neaville.

## Strata.

## Mississippian System.

	Thickness	Depth
Limestone and shale .....	220	220

## Devonian System.

Shale, black (Chattanooga) .....	55	275
Limestone, pepper and salt .....	12	287
Limestone, gray and brown .....	8	295
Shale, hard, lead color .....	4	299
Limestone, gray, brown and dark .....	4	303

## Silurian System.

Limestone "sand," brown, (oil show) .....	12	315
Limestone "sand," brown and fine .....	4	319
Shale, hard, muddy, lead color .....	8	327
Shale, dark and clean .....	4	331
Limestone, gray and brown .....	4	335
Limestone, dingy brown .....	16	351
Limestone, muddy .....	4	355
Total depth .....		355

Water at 25 and 62 feet.

**Log No. 1047**

O. M. Stringer, No. 8, lessor. Location:  $8\frac{1}{2}$  miles east of Franklin, on Middle Fork Creek. Commenced: April 23, 1920. Completed: May 20, 1920. Authority: Glen Neaville.

## Strata.

Mississippian System.	Thickness	Depth
Limestone and shale .....	230	230

## Devonian System.

Shale, black (Chattanooga) .....	47	287
Limestone, pepper and salt .....	4	291
Limestone, coarse and brown .....	8	299
Limestone, white and fine .....	12	311
Limestone, gray and brown .....	12	323

## Silurian System.

Shale, hard, muddy .....	8	331
Shale, muddy and brown .....	4	335
Sand, dark brown, (rainbow) .....	24	359
Shale, hard, light colored .....	4	363
Limestone, light brown, coarse .....	7	370
Limestone, dark .....	8	378
Shale, hard, dark .....	2	380
Total depth .....		380

**Log No. 1048**

O. M. Stringer, No. 9, lessor. Location:  $8\frac{1}{2}$  miles east of Franklin, on Middle Fork Creek. Commenced: April 30, 1920. Completed: May 10, 1920. Authority: Glen Neaville.

## Strata.

Mississippian System.	Thickness	Depth
Limestone and shale .....	224	224

## Devonian System.

Shale, black (Chattanooga) .....	53	277
Limestone, pepper and salt .....	4	281
Limestone, light gray, blue, (gas) .....	4	285
Limestone, pepper and salt .....	8	293
Shale, hard and muddy .....	8	301
Limestone, light gray .....	4	305
Limestone, grayish brown .....	4	309

## Silurian System.

	Thickness	Depth
Limestone "sand," brown and coarse .....	8	317
Limestone "sand," fine .....	4	321
Shale, hard and muddy .....	12	333
Limestone, fine and brown .....	16	349
Limestone "sand," (oil show) .....	15	364
Total depth .....		364

## Log No. 1049

Stringer Bros., No. 4, lessors. Commenced: Dec. 29, 1919. Completed: Jan. 14, 1920. Authority: Irvin J. Brown Oil Co.

## Strata.

## Mississippian System.

	Thickness	Depth
Limestone and shale .....	340	340

## Devonian System.

Shale, black (Chattanooga) .....	55	395
Limestone, pepper and salt .....	8	403
Limestone, gray .....	4	407
Limestone, muddy .....	8	415
Limestone, medium, dark brown .....	8	423
Limestone, gray .....	8	431

## Silurian System.

Limestone, whitish brown .....	4	435
Limestone, (rainbow) .....	4	439
Limestone, muddy gray .....	8	447
Limestone, dark brown .....	4	451
Limestone, light .....	4	455
Limestone, little darker, (fair show of oil) ...	4	459
Limestone, brown and gray .....	4	463
Limestone, brown and gray .....	8	471
Total depth .....		471

**Log No. 1050**

Stringer Bros., No. 5, lessors. Commenced: Dec. 30, 1919. Completed: Jan. 13, 1920. Authority: Irvin J. Brown Oil Co.

Strata.		
Mississippian System.		
	Thickness	Depth
Limestone and shale .....	338	338
Devonian System.		
Shale, black (Chattanooga) .....	55	393
Limestone, pepper and salt .....	4	397
Limestone, black and gray .....	4	401
Limestone, muddy .....	8	409
Limestone, muddy, gray .....	4	413
Limestone, whitish .....	4	417
Limestone, light, (oil show) .....	8	425
Silurian System.		
Limestone "sand," muddy, gray .....	4	429
Limestone "sand," light brown gray .....	4	433
Limestone "sand," (good oil show) .....	8	441
Limestone "sand," darker .....	4	445
Total depth .....		445

**Log No. 1051**

Stringer Bros., No. 10, lessors. Irving J. Brown Oil Co., lessee. Location: 8½ miles east of Franklin, on Middle Fork Creek. Commenced: March 24, 1920. Completed: April 15, 1920. Authority: Glen Neaville.

Strata.		
Mississippian System.		
	Thickness	Depth
Limestone and shale .....	345	345
Devonian System.		
Shale, black (Chattanooga) .....	54	399
Limestone, pepper and salt .....	8	407
Limestone, muddy gray .....	12	419
Limestone, muddy and brown .....	8	427
Shale, hard, lead color, dark .....	8	435
Silurian System.		
Limestone "sand," brown .....	8	443
Shale, hard and muddy .....	4	447
Limestone "sand," light brown, (rainbow) ..	24	471
Limestone "sand," dark brown .....	10½	481½
Total depth .....		481½



**Log No. 1052**

Stringer Bros., No. 11, lessor. Location: 8½ miles east of Franklin, on Middle Fork Creek. Commenced: April 23, 1920. Completed: May 14, 1920. Authority: Glen Neaville.

## Strata.

Mississippian System.	Thickness	Depth
Limestone and shale .....	360	360
Devonian System.		
Shale, black (Chattanooga) .....	54	414
Limestone, pepper and salt .....	8	422
Limestone, dark, muddy, gray .....	8	430
Limestone, muddy and brown .....	8	438
Shale, hard and muddy .....	8	446
Silurian System.		
Limestone "sand," light brown .....	6	452
Shale, hard and muddy .....	7	459
Limestone "sand," light brown (rainbow) ...	32	491
Shale .....	4½	495½
Total depth .....		495½

**Log No. 1053**

Chas. White, No. 1, lessor. Location: 5 miles east of Franklin, on Lick Creek. Authority: Moran Oil Refining Co.

## Strata.

Mississippian System.	Thickness	Depth
Clay .....	3	3
Clay and limestone boulders .....	47	50
Limestone, gray .....	27	77
Shale, caving, (water) .....	3	80
Limestone and flint .....	42	122
Limestone, sandy .....	8	130
Limestone, gray, (sulphur water 165) .....	35	165
Limestone, crystallized .....	15	180
Limestone, dark and soft .....	55	235
Limestone, hard and gray .....	65	300
Limestone, white .....	20	320
Limestone, gray, and flint .....	35	355
Limestone, white, very hard .....	95	450
Limestone, green, and shale (New Providence) .....	17	467



Devonian System.	Thickness	Depth
Shale, black (Chattanooga) .....	59	526
Limestone, white .....	9	535
Limestone "sand" .....	6	541
Limestone, blue .....	49	590
Limestone, gray .....	27½	617½
Limestone, white .....	12½	630
Limestone, white and blue .....	37	667
Limestone, white .....	10	677
Limestone "sand," (little oil) .....	23	700
Limestone and sand, (salt water) .....	5	705
Total depth .....		705

NOTE—The Devonian-Silurian contact occurs within the upper half of the 49 feet of limestone above 590 feet in depth.

#### Log No. 1054

Pugh, No. 1, lessor. Location: 2 miles southeast of South Union. Drilled: June 21, 1921. Production: Orig. open flow 200 bbls. oil per day. Authority: C. A. Phelps.

Strata.

Mississippian and Devonian Systems.	Thickness	Depth
Limestone and shale .....	464	464
Limestone (cap rock) .....	8	472
Limestone "sand," (gas) .....	8	480
Limestone, (oil show) .....	20	500
Limestone "sand," (pay) (excellent) .....	2	522
Total depth .....		522

NOTE—No. 2 well same as No. 1, except larger.

### TAYLOR COUNTY.

Production: Oil and Gas. Producing Sands: Corniferous (Devonian); "Second" or "Deep", (Niagaran-Silurian).

#### Log No. 1055

J. R. Bailey, No. 1, lessor. Cash dollar, et al., lessees. Location: Just south of Sulphur Well P. O. Production: 2,470,000 cu. ft. gas. Casinghead el. above sea level, 790 feet.

Strata.

Mississippian System.	Thickness	Depth
Soil .....	3	3
Limestone, gray .....	140	143
Shale, blue .....	2	145
Limestone, white .....	2	147
Limestone, gray .....	84	231
Limestone, broken .....	60	291

## Devonian System.

	Thickness	Depth
Shale, black (Chattanooga) .....	52	343
Limestone (cap rock) .....	3	346

## Ordovician System.

Limestone, (gas) .....	30	376
Shale, blue and pink .....	55	431
Limestone, gray .....	2	433
Limestone, brown sand .....	4	437
Sand, shaly .....	5	442
Total depth .....		442

## Log No. 1056

W. A. Russell, No. 1, lessor. Cashdollar, et. al., lessees. Location:  
 $\frac{3}{4}$  mile southeast of Sulphur Well P. O. Production: 321,000 cu. ft.  
 gas. Casing head el. above sea level, 690 feet.

## Strata.

## Mississippian System.

	Thickness	Depth
Limestone, (gas) .....	115	115
Limestone, (gas 160) .....	50	165
Shale, blue .....	5	170
Limestone .....	40	210
Shale, gray .....	10	220

## Devonian System.

Shale, black (Chattanooga) .....	40	260
Limestone, soft .....	10	270

## Ordovician System.

Limestone (pay) (gas) .....	30	300
Shale, blue and red .....	50	350
Sand, brown .....	44	394
Total depth .....		394

**Log No. 1057**

W. L. Hall, No. 4, lessor. Kenney Oil Co., lessee. Location: 1 mile northeast of Saloma P. O. Production: Dry. Casing head el. above sea level, 954 feet.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	20	20
Limestone, black, and shale .....	50	70
Limestone, white, and flint .....	10	80
Limestone, brown, and flint .....	5	85
Limestone and flint .....	20	105
Limestone, gray .....	5	110
Limestone and shale .....	20	130
Sand, gray .....	5	135
Shale, black .....	15	150
Limestone, gray .....	5	155
Limestone, black, and shale .....	20	175
Limestone, gray and white .....	25	200
Limestone, gray .....	25	225
Limestone, brown, and shale, (gas) .....	40	265
Limestone, brown, and shale .....	100	365
Devonian System.		
Shale, black (Chattanooga) .....	10	375
Shale, black .....	35	410
Limestone, gray .....	8	418
Ordovician System.		
Limestone "sand," (neither oil or gas) .....	12	430
Limestone, brown and gray .....	7	437
Total depth .....		437

**Log No. 1058**

C. M. Hill, No. 3, lessor. Kenney Oil Co., lessee. Location:  $\frac{3}{4}$  mile S. W. Saloma P. O. Production: Dry. Casing head el. above sea level, 884 feet.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	20	20
Limestone, brown, and sand .....	180	200
Limestone, brown, and shale .....	45	245
Soapstone, white .....	25	270
Shale, green (New Providence) .....	80	350

## Devonian System.

	Thickness	Depth
Shale, black (Chattanooga) .....	52	402
Limestone, brown .....	5	407

## Ordovician System.

Limestone "sand," white, (dry) .....	7	414
Limestone, brown, and flint .....	16	430
Total depth .....		430

## Log No. 1059

Annie Campbell, No. 1, lessor. Kenney Oil Co., lessee. Location: 2 miles S. W. of Saloma P. O. Production: 250,000 cu. ft. gas. Casing head el. above sea level, 904 feet.

## Strata.

## Mississippian and Devonian Systems.

	Thickness	Depth
Soil .....	7	7
Limestone, brown .....	11	18
Limestone and shale .....	52	70
Limestone, gray, (gas) .....	10	80
Limestone, white .....	5	85
Limestone, gray .....	55	140
Limestone, brown, and flint .....	107	247
Limestone, brown .....	285	532
Limestone "sand," (oil) (good sand and gas) .....	28	560
Limestone and shale .....	25	585
Fire clay, red .....	35	620
Fire clay, red .....	65	685
Limestone, white .....	25	710
Limestone "sand," (oil) (good and dry) ....	20	730
Limestone, sandy .....	15	745
Limestone, brown .....	30	775
Total depth .....		775

NOTE—The record of this well is not detailed enough to permit the showing of the Mississippian-Devonian contact. It is, however, close to 532 feet in depth. The Ordovician is close to this point, since the Devonian limestone is thin.

**Log No. 1060**

J. H. Hill, No. 1, lessor. Kenney Oil Co., lessee. Location: 1 mile S. W. of Saloma P. O. Production: 1,400,000 cu. ft. gas. Tests: 1/26 gallon gas to 1,000 feet. Casing head el. above sea level, 864 feet.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	10	10
Limestone, white, (gas and water) .....	2	12
Limestone, brown, and shale .....	173	185
Limestone and shale, green .....	15	200
Limestone and shale, brown .....	100	300
Shale, green (New Providence) .....	30	330
Devonian System.		
Shale, black (Chattanooga) .....	70	400
Limestone, white .....	10	410
Ordovician system.		
Sand, white, (strong gas) .....	10	420
Limestone, brown .....	50	470
Shale, green .....	15	485
Limestone and shale .....	15	500
Limestone, white .....	20	520
Limestone "sand," (good and dry) .....	15	535
Limestone, white .....	5	540
Total depth .....		540

**Log No. 1061**

J, W. Wayne, No. 1, lessor. Cash dollar, et. al., lessees. Location: ¼ mile N. W. of Sulphur Well P. O. Production: 2,470,000 cu. ft. gas. Casing head el. above sea level, 790 feet.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	5	5
Limestone, gray .....	15	20
Shale, blue .....	7	27
Limestone, gray .....	113	140
Flint rock .....	15	155
Limestone, gray .....	46	201
Limestone, broken .....	89	290
Shale, blue (New Providence) .....	7	297

Devonian System.	Thickness	Depth
Shale, black (Chattanooga) .....	50	347
Limestone (cap rock) .....	5	352
Limestone "sand," (pay) (gas) .....	17	369
Limestone, hard .....	1	370
Total depth .....		370

**Log No. 1062**

J. W. Cloyd, No. 1, lessor. Location: 2½ miles S. W. of Campbellsville. Commenced: Sept. 1, 1920. Completed: November, 1920. Drillers: Walter Hobson and Finn Litrell. Authority: F. L. Parrott, contractor.

## Strata.

Mississippian System.	Thickness	Depth
Clay, sandy .....	3	3
Limestone, hard, brown .....	100	103
Limestone, gray .....	25	128
Limestone, soft, brown .....	132	260
Shale, blue, and gumbo (New Providence) ...	30	290

## Devonian System.

Shale, black (Chattanooga) .....	32	322
Shale, dark brown (Chattanooga) .....	11	333
Limestone (cap rock), (show of oil) .....	½	333½
Limestone, white .....	2½	336

## Ordovician System.

Shale, blue, soft .....	27½	363½
Shale, brown, soft (pink) .....	3¾	367¼
Limestone "sand," brown .....	4¼	371½
Limestone, brown .....	33½	405
Sand, pale yellow .....	10	415
Limestone, white .....	3	418
Limestone, broken .....	22	440
Limestone, brown .....	57	497
Total depth .....		497

**Log No. 1063**

W. B. Hill, No. 1, lessor. Location: 1 mile N. W. of Saloma.  
Commenced: May 16, 1921. Completed: June 18, 1921. Production:  
500,000 cu. ft. gas. Authority: Green River Gas Co.

## Strata.

Mississippian System.	Thickness	Depth
Clay .....	6	6
Sand, yellow .....	24	30
Limestone, hard, gray .....	34	64
Limestone, brown, (water at 85) .....	101	165
Limestone, gray, flinty .....	40	205
Limestone, soft, brown, (gas 306) .....	115	320
Shale, green (New Providence) .....	60	380

## Devonian System.

Shale, black (Chattanooga) .....	55	435
Limestone (cap rock) "sand," medium, (gas show) .....	20	455
Limestone "sand," light gray .....	10	465
Limestone, hard, gray, (no more gas) .....	5	470
Limestone, sandy with crystals .....	5	475
Limestone, gray, fine, fossils .....	10	485
Shale, hard, blue, muddy .....	11	496
Total depth .....		496

136 feet of 6¼" casing.

NOTE—The Devonian-Silurian contact is within the 20 feet above  
455 feet in depth.

**Log No. 1064**

W. E. Stone, No. 1, lessor. Location: 1½ miles west of Campbells-  
ville. Commenced: March 4, 1921. Production: 500,000 cu. ft. gas.  
Authority: Green River Gas Co.

## Strata.

Mississippian System.	Thickness	Depth
Clay, red .....	3	3
Limestone, gray .....	17	20
Cavity, mud and water .....	½	20½
Limestone, gray .....	15½	36
Cavity, water .....	1	37
Limestone, flinty .....	18	55

Mississippian System.	Thickness	Depth
Limestone, gray .....	12	67
Limestone, blue .....	13	80
Limestone, white, blue .....	35	115
Limestone, blue, very hard .....	130	245
Limestone, soft, dark, black .....	10	255
Shale, hard, blue .....	51	306
Devonian System.		
Shale, black (Chattanooga) .....	45	351
Limestone (cap rock), dark gray .....	49	400
Limestone "sand," gray, fine, (gas) .....	2	402
Limestone "sand," blue, gray, coarse, (gas) .....	8	410
Limestone "sand," blue, gray, very coarse ..	5	415
Limestone "sand," bluish gray, (no gas) ....	5	420
Limestone "sand" .....	5	425
Shale, hard, blue .....	21	446
Total depth .....		446

NOTE—With the exception of a few feet (5-10) at the top of the 49 feet of limestone above 400, all of this strata is probably Ordovician. The Devonian-Ordovician contact is a few feet below the black (Chattanooga) shale.

### Log No. 1065

T. E. Claycomb, No. 1, lessor. Location: 2 miles southeast of Saloma, 4 miles northwest of Campbellsville. Completed: June 25, 1920. Production: 962,000 cu. ft. gas. Contractor: William Claycomb.

#### Strata.

Mississippian System.	Thickness	Depth
Clay .....	17	17
Limestone, broken .....	173	190
Limestone, blue .....	105	295
Limestone and shale, blue (New Providence) (gas show) .....	33	328
Devonian System.		
Shale, black (Chattanooga) .....	52	380
Limestone (cap rock), dark gray, hard .....	5	385



Ordovician System.	Thickness	Depth
Limestone, hard, gray, sandy, (gas show 387)	10	395
Limestone, coarse pebbles, and sand, (large flow of gas) .....	8	403
Limestone "sand," blue, soft, muddy, (show of salt water) .....	4½	407½
Total depth .....		407½

### TODD COUNTY.

Production: Oil and Gas. Producing Sands: "Shallow" (Mississippian);  
Corniferous (Devonian); "Deep" (Silurian).

#### Log No. 1066

Tom Mimms, No. 1, lessor. Rogers & Wilson, lessees. Location:  
¾ mile northwest of Guthrie. Authority: H. E. Wilson.

Strata.		Thickness	Depth
Mississippian System.			
Limestone and shale .....		1,001	1,001
Devonian System.			
Shale, black (Chattanooga) .....	79		1,080
Sand, (pay) .....	20		1,100
Shale (red rock) .....	5		1,105
Total depth .....			1,105

Shot 240 quarts. No good.

#### Log No. 1067

T. C. Slack, No. 1, lessor. Rogers & Wilson, lessees. Location:  
About ¾ mile north of Guthrie. Authority: H. E. Wilson. Formation  
same as Mimms, No. 1, except no pay.

#### Log No. 1068

Bob Sydnor, No. 1, lessor. Location: 5 miles west of Guthrie.  
Authority: H. E. Wilson.

Strata.		Thickness	Depth
Mississippian System.			
Limestone, gray .....	672		672
Limestone (flint), blue .....	350		1,022
Limestone "sand," (small pay 1,162) .....	140		1,162
Total depth .....			1,162

## Log No. 1069

"Bus" Terrell, No. 1, lessor. Elkton Oil Co., lessee. Location: About 150 feet from the north line and 150 feet from the east line of the Terrell Farm, 1 mile north of Elkton. Commenced: June 19, 1919. Completed: Feb. 1, 1920. Production: Volumes of salt water. Drilling contractors: Shaw Drilling Co., Inc., Oklahoma, Okla. Authority: Elkton Oil Co.

## Strata.

Mississippian System.	Thickness	Depth
Clay, red, soft .....	13	13
Clay, yellow, hard .....	2	15
Limestone, gray, hard .....	6	21
Shale, gray, soft .....	2	23
Limestone, gray, hard .....	9	32
Shale, gray, soft, (water) .....	5	37
Limestone, blue, hard .....	9	46
Limestone, white, soft .....	21	67
Shale, gray, soft, (water) .....	1	68
Limestone, white, soft .....	56	124
Shale, blue, soft, (sulphur water) .....	4	128
Limestone, gray, hard .....	4	132
Limestone, white, soft .....	24	156
Shale, white, soft .....	2	158
Limestone, gray, hard .....	14	172
Limestone, white, soft .....	29	201
Limestone, gray, hard .....	4	205
Limestone, white, soft .....	24	229
Limestone, gray, hard .....	4	233
Limestone, gray, very hard .....	19	252
Limestone, gray, spar, soft, coarse .....	6	258
Limestone, gray, hard .....	4	262
Limestone, gray, very hard .....	2	264
Limestone, brown, decomposed, coarse .....	6	270
Limestone, brown, hard, fine .....	20	290
Limestone, gray, hard .....	5	295
Limestone and shale, soft, (gas show) .....	15	310
Limestone, gray, hard .....	5	315
Limestone, gray (crystalline oolitic) .....	5	320
Limestone, gray, hard .....	22	342
Limestone, gray, light, hard .....	12	354
Limestone, brown and gray, soft .....	40	394
Limestone, brown, decomposed .....	13	407
Limestone, gray, hard .....	55	462
Limestone, brown, decomposed, (sulphur water) .....	43	505
Limestone, white, soft .....	20	525

Mississippian System.	Thickness	Depth
Limestone, black .....	65	590
Limestone, gray, and red rock .....	6	596
Shale and lime shell, (casing 6-5/8) .....	8	604
Limestone, black .....	66	670
Shale (break) .....	2	672
Sand, brown .....	8	680
Sand, white .....	12	692
Shale (break) .....	2	694
Limestone, black .....	8	702
Limestone, gray .....	13	715
Pebble sand, brown .....	6	721
Shale and lime shell .....	9	730
Limestone, white .....	10	740
Shale and lime shell .....	12	752
Limestone, black .....	18	770
Limestone, white .....	7	777
Limestone, white .....	73	850
Limestone, blue .....	351	1,201
Shale and lime shell .....	44	1,245

## Devonian System.

Shale, brown, (Chattanooga) .....	50	1,295
Lime shell, black (Chattanooga) .....	5	1,300
Shale, black (Chattanooga) .....	50	1,350
Limestone "sand" .....	20	1,370
Limestone "sand," brown, (oil show) .....	8	1,378
Limestone "sand," white .....	2	1,380
Limestone "sand," brown, (oil show) .....	10	1,390

## Silurian System.

Limestone "sand," white .....	13	1,403
Limestone "sand," brown .....	5	1,408
Limestone "sand," white .....	37	1,445
Limestone "sand," white, soft .....	85	1,530

## Ordovician System.

Limestone "sand," brown, (water) .....	20	1,550
Total depth .....		1,550

Casing record: 140 ft. 10 in. 8¼" casing; 604 ft. 6-5/8" casing.

NOTE—The "sands" referred to from 1,350 to the bottom of the well are not true silicious sands, but are either soft granular limestones, or sandy limestones.

## UNION COUNTY.

## Log No. 1069-A.

George Proctor, No. 1, lessor. Mt. Carmel Syndicate, Mt. Carmel, Ill., lessee. Completed: February, 1922. Production: 20 bbls. oil approximately. Authority: Ivyton Oil & Gas Co., Louisville, Ky.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Clay . . . . .	7	7
Clay, blue . . . . .	20	27
Shale, blue . . . . .	30	57
Shale, sandy . . . . .	60	117
Limestone rock . . . . .	14	131
Shale (fire clay) . . . . .	2	133
Coal . . . . .	1	134
Shale, blue . . . . .	2	136
Limestone rock . . . . .	3	139
Shale . . . . .	5	144
Shale, dark . . . . .	4	148
Coal . . . . .	5	153
Shale (fire clay) . . . . .	2	155
Shale, sandy . . . . .	5	160
Shale, soft . . . . .	15	175
Shale, gray, . . . . .	10	185
Shale, dark (Conemaugh and Allegheny Series)	30	215
Shale, blue . . . . .	15	230
Shale, gray . . . . .	20	250
Shale, black . . . . .	5	255
Coal . . . . .	4	259
Shale (fire clay) . . . . .	5	264
Limestone, blue . . . . .	2	266
Shale, sandy . . . . .	10	276
Shale, gray . . . . .	10	286
Shale, dark . . . . .	30	316
Shale, gray . . . . .	40	356
Shale, dark . . . . .	35	391
Shale, sandy . . . . .	20	411
Shale, dark . . . . .	30	441
Shale, black . . . . .	4	445
Shale (fire clay) . . . . .	3	448
Shale, sandy . . . . .	10	458
Shale, dark . . . . .	20	478
Coal . . . . .	1	479
Shale (fire clay) . . . . .	2	481
Shale, dark . . . . .	10	491



A WESTERN KENTUCKY OIL "SAND" OF PROMISE

The Sebrece Sandstone, basal formation, in the Allegheny series, is thick and coarse grained. It has recently become recognized as an oil producer in Union County and undoubtedly has an important future, outcrop type locality east of Sebrece, Kentucky.

Pennsylvanian System.		Thickness	Depth
Limestone, blue .....		2	493
Shale, dark .....		40	533
Shale, white .....		10	543
Shale, dark .....		46	589
Sand,	} Sebree Sandstone	48	637
Sand (oil, 20 bbls),		9	646
Total depth .....			646

NOTE—This record stops at the base of the Alleghany Series.



# CHAPTER X.

## WARREN COUNTY.

Production: Oil and Gas. Producing Sands: "Shallow," "Beaver," and "Amber Oil Sand" (Mississippian); Corniferous (Devonian); "Deep" (Niagaran age) (Silurian).

### Log No. 1070

Graham, No. 1, lessor. Location: 3 miles northeast of Bowling Green, Richardsville, Pike. Completed: January, 1920. Authority: E. W. Cooper, contractor.

Strata.

Mississippian System.	Thickness	Depth
Soil, gravel and boulders .....	30	30
Limestone .....	652	682
Devonian System.		
Shale, black (Chattanooga) .....	85	767
Limestone (cap rock) .....	16	783
Limestone, white, oil odor .....	12	795
Limestone, brown, light show .....	24	819
Silurian System.		
Limestone, gray .....	37	856
Limestone, soft, fair show of oil .....	20	876
Limestone, light gray .....	26	902
Ordovician System.		
Limestone, streaks of oil sands .....	173	1,075
Limestone (cap rock) .....	11	1,086
Limestone, light brown, strong oil odor .....	35	1,121
Limestone, dark .....	9	1,130
Total depth .....		1,130
Fresh water from 40 to 60 feet.		
Sulphur water from 210 to 225 feet.		

### Log No. 1071

W. B. Anderson, No. 1, lessor. Completed: November 5, 1919.  
Strata.

Mississippian System.	Thickness	Depth
Soil .....	65	65
Limestone, gray .....	60	125
Limestone, blue (sulphur water) .....	15	140
Limestone, blue .....	5	145
Limestone, blue .....	5	150
Limestone, bluer (showing of oil) .....	15	165



Mississippian System.	Thickness	Depth
Limestone (lot of gas, 215-20) .....	55	220
Limestone, dark .....	40	260
Limestone, dark .....	20	280
Limestone, lighter .....	30	310
Limestone, white .....	30	340
Limestone, white .....	40	380
Limestone, clear white .....	30	410

Devonian System.	Thickness	Depth
Shale, black .....	65	475
Limestone (cap rock), white, sandy, (showing of oil at 483) .....	8	483
Oil "sand," brown .....	32	515
Limestone, gray .....	18	533
Total depth .....		533

Drilled by J. S. Garretson & Son, drilling contractors, Bowling Green, Ky. Commenced spudding on September 29, 1919. Amount of casing used, 654 feet, 8¼ and 180 feet 6¼.

#### Log No. 1072

Chandler, No. 1, lessor. Location: Moulder Pool. Authority: W. N. Thayer.

Strata.

Mississippian System.	Thickness	Depth
Limestone .....	295	295
Devonian System.	Thickness	Depth
Shale, black .....	52	347
Limestone, "sand," (dry) .....	18	365
Limestone .....	37	402
Limestone, "sand," (oil show) .....	13	415
Total depth .....		415

#### Log No. 1073

Chandler, No. 2, lessor. Location: Moulder Pool.

Strata.

Mississippian System.	Thickness	Depth
Limestone .....	291	291
Devonian System.	Thickness	Depth
Shale, black .....	52	343
Limestone, "sand," (dry) .....	18	361
Limestone .....	27	388
Total depth .....		388

**Log No. 1074**

W. A. Hewitt, No. 1, lessor. Location: Martin Precinct. Completed: July 3, 1920. Authority: The New Domain Oil & Gas Company.

## Strata.

Mississippian System.	Thickness	Depth
Clay, red .....	22	22
Limestone, gray .....	123	145
Limestone, blue .....	295	440
Devonian System.		
Shale, brown .....	50	490
Limestone, cap rock .....	5	495
Limestone, white .....	10	505
Total depth .....		505

**Log No. 1075**

W. A. Hewitt, No. 4, lessor. Completed: April 8, 1920. Production: Estimated at 4 barrels. Authority: New Domain Oil & Gas Company.

## Strata.

Mississippian System.	Thickness	Depth
Clay, red .....	25	25
Limestone, gray, hard .....	417	442
Devonian System.		
Shale, black .....	53	495
Limestone, dark .....	10	505
Limestone, gray .....	6	511
Total depth .....		511

**Log No. 1076**

W. A. Hewitt, No. 6, lessor. Completed: May 18, 1920. Authority: New Domain Oil & Gas Company.

## Strata.

Mississippian System.	Thickness	Depth
Clay, red .....	17	17
Limestone, gray, light .....	137	154
Limestone, gray, dark .....	272	426
Devonian System.		
Shale, black .....	52	478
Limestone (cap rock), black .....	9	487
Limestone "sand" .....	6	493
Total depth .....		493

**Log No. 1077**

W. A. Hewitt, No. 7, lessor. Completed: June 10, 1920. Authority: New Domain Oil & Gas Company.

## Strata.

Mississippian System.	Thickness	Depth
Clay, red .....	24	24
Limestone, gray .....	129	153
Limestone, white .....	288	441

## Devonian System.

Shale, black (Chattanooga) .....	53	494
Limestone (cap rock), black .....	6	500
Limestone, "sand," gray (Corniferous) .....	9	509
Total depth .....		509

**Log No. 1078**

J. C. Cole, No. 1, lessor. Completed: September 29, 1919. Authority: The Swiss Oil Corporation.

## Strata.

Mississippian System.	Thickness	Depth
Clay and gravel (water) .....	32	32
Limestone, gray, dark (water at 60) .....	33	65
Limestone, white .....	65	130
Limestone, blue, and flint .....	28	158

## Devonian System.

Shale, black .....	45	203
Shale, black, and limestone .....	6	209
Limestone, brown .....	13	222
Limestone, oil "sand," rainbow .....	3	225
Limestone, gray .....	5	230
Total depth .....		230

**Log No. 1079**

J. C. Cole, No. 2, lessor. Commenced: September 30, 1919. Completed: October 8, 1919. Production: Dry. Authority: The Swiss Oil Corporation.

## Strata.

Mississippian System.	Thickness	Depth
Clay and gravel .....	33	33
Limestone, gray, dark .....	32	65
Limestone, white .....	60	125
Limestone, blue .....	30	155
Limestone and shale, blue .....	10	165
Devonian System.		
Shale, black (Chattanooga) .....	47	212
Limestone, black .....	5	217
Limestone (cap rock) .....	5	222
Limestone, oil "sand," rainbow and stain ...	5	227
Limestone, blue (salt water at 268) .....	41	268
Limestone, salty .....	3	271
Total depth .....		271

**Log No. 1080**

Brunson, No. 1, lessor. Authority: The Swiss Oil Corporation.

## Strata.

Mississippian System.	Thickness	Depth
Clay, soft .....	24	24
Limestone .....	36	60
Mud cave (fresh water at 75) .....	15	75
Limestone, black, hard (sulphur water at 110)	45	120
Limestone, white, medium .....	40	160
Limestone and shell, dark, soft (show of oil at 215) .....	100	260
Limestone, sandy, light .....	40	300
Limestone, sandy, white .....	75	375
Shale, green, soft .....	40	415
Devonian System.		
Shale, black, soft (Chattanooga) .....	45	460
Limestone (cap rock) .....	8	468
Limestone, "sand," (first) .....	7	475
Limestone, break .....	25	500
Limestone, "sand," (second) .....	8	508
Shale (break) .....	17	525
Limestone, "sand," (third) .....	6	531
Total depth .....		531

**Log No. 1081**

Brunson, No. 5, lessor. Commenced: May 31, 1920. Completed: June 15, 1920. Authority: The Swiss Oil Corporation.

## Strata.

Mississippian System.	Thickness	Depth
Limestone, gray, hard .....	30	30
Mud cave, soft (fresh water at 45) .....	15	45
Limestone, black, hard (sulphur water at 80) .....	35	80
Limestone, white, medium .....	62	142
Limestone, gritty, white, hard, shells .....	108	250
Limestone, gritty, white, hard .....	50	300
Limestone, white, medium .....	55	355
Shale, green, medium .....	55	410
Devonian System.		
Shale, black, soft (Chattanooga) .....	50	460
Limestone (cap rock), brown, hard (gas at 469) .....	9	469
Limestone, "sand," white, soft (oil at 470) ..	8	477
Shale, break, brown, hard .....	1	478
Total depth .....		478

**Log No. 1082**

Brunson, No. 7, lessor. Commenced: June 18, 1920. Completed: July 9, 1920. Authority: The Swiss Oil Corporation.

## Strata.

Mississippian System.	Thickness	Depth
Clay and gravel, soft .....	18	18
Limestone, gray, hard (fresh water at 80, sulphur water at 110) .....	92	110
Limestone, white, hard .....	50	160
Limestone and shells, dark, medium .....	140	300
Limestone, white, gritty .....	50	350
Limestone, white, hard .....	50	400
Shale, green, gritty .....	50	450
Devonian System.		
Shale, black (Chattanooga) .....	50	500
Limestone (cap rock), brown, hard .....	6	506
Limestone, "sand," white, soft (first) .....	9	515
Shale, break, brown, hard .....	1	516
Total depth .....		516

**Log No. 1083**

Goodnight, No. 3, lessor. Authority: The Swiss Oil Corporation.

## Strata.

Mississippian System.	Thickness	Depth
Clay and gravel .....	50	50
Limestone, brown .....	90	140
Limestone, brown .....	15	155
Limestone, dark .....	33	188
Limestone, gray .....	75	263
Limestone, yellow and brown .....	30	293
Limestone and shale, green .....	50	343
Devonian System.		
Shale, black (Chattanooga) .....	50	393
Limestone, brown and black .....	11	404
Limestone (cap rock), white .....	3	407
Limestone, oil and water .....	8	415
Limestone, soft, dark .....	33	448
Limestone, "sand," brown (oil showing) ....	15	463
Silurian System.		
Limestone and shale, hard, dark .....	75	538
Limestone, "sand," (oil odor) .....	15	553
Limestone, blue .....	3½	556½
Total depth .....		556½

**Log No. 1084**

J. E. Moulder, No. 9, lessor. Commenced: July 24, 1919. Completed: Aug. 23, 1919. Contractor: J. D. Turner, Bowling Green. Authority: The Swiss Oil Corporation.

## Strata.

Mississippian System.	Thickness	Depth
Soil and gravel .....	7	7
Limestone boulders, hard .....	18	25
Limestone, soft .....	15	40
Limestone, gray, and flint, white, hard .....	10	50
Limestone, brown, soft .....	20	70
Limestone and flint, white, hard .....	20	90
Flint, blue, white .....	10	100
Limestone, white, soft .....	30	130
Flint, white, hard .....	20	150
Limestone and flint, white .....	20	170
Flint, white, shelly .....	30	200
Shale, green, soft (New Providence) .....	35	235

Devonian System.	Thickness	Depth
Shale, black, soft (Chattanooga) .....	40	275
Shale, brown .....	10	285
Limestone, hard .....	8	293
Limestone, oil "sand," gray, soft .....	3	296
Total depth .....		296

**Log No. 1085**

J. E. Moulder, No. 10, lessor. Commenced: August 9, 1919.  
 Completed: September 3, 1919. Contractor: L. D. Turner. Production: Dry. Authority: The Swiss Oil Corporation.

## Strata.

Mississippian System.	Thickness	Depth
Clay, red .....	22	22
Limestone, hard, gray .....	158	180
Limestone and flint, gray, white, hard .....	105	285
Limestone, gray, hard .....	70	355
Shale, green, hard, (New Providence) .....	10	365

## Devonian System.

Shale, black, hard (Chattanooga) .....	45	410
Limestone and shale, gray, hard .....	11	421
Limestone (cap rock), mixed, hard .....	6	427
Limestone and flint, black, hard .....	6	433
Limestone, oil "sand" .....	6	439
Limestone, salt water, hard .....	8	447
Limestone, gray, soft .....	4	451
Total depth .....		451

**Log No. 1086**

J. E. Moulder, No. 11, lessor. Authority: The Swiss Oil Corporation.

## Strata.

Mississippian System.	Thickness	Depth
Clay, red, soft .....	23	23
Limestone, blue, medium (water at 123) ....	137	160
Sand, fine, white, hard .....	10	170
Shale, hard, white .....	86	256
Sand, coarse, gray, soft .....	12	268
Limestone, white, hard .....	17	285

Mississippian System.	Thickness	Depth
Sand, brown, soft (gas at 286) .....	15	300
Flint, blue, hard .....	5	305
Shale, green, soft .....	41	346

## Devonian System.

Shale, black, soft .....	54	400
Limestone, brown, soft .....	5	405
Shale, black, hard .....	3	408
Limestone (cap rock), brown, gas .....	6	414
Limestone, "sand," light, soft .....	4	418
Total depth .....		418

## Log No. 1087

J. E. Moulder, No. 12, lessor. Authority: The Swiss Oil Corporation.

## Strata.

Mississippian System.	Thickness	Depth
Unrecorded .....	79	79
Limestone, black, hard .....	5	84
Limestone, gray, hard .....	28	112
Limestone and flint, white and hard .....	8	120
Limestone, white, hard .....	30	150
Limestone, gray, soft .....	12	162
Limestone, gray, soft .....	18	180
Limestone spur, gray, soft .....	5	185
Shale, green, soft (New Providence) .....	29	214
Limestone and black shale, hard .....	6	220

## Devonian System.

Shale, black, hard (Chattanooga) .....	47	267
Shale, brown, soft .....	6	273
Limestone (cap rock), soft .....	2 $\frac{2}{3}$	275 $\frac{2}{3}$
Limestone "sand" .....	2 $\frac{5}{6}$	278 $\frac{1}{2}$
Total depth .....		278 $\frac{1}{2}$



## Log No. 1088

J. E. Moulder, No. 13, lessor. Completed: November 7, 1919.  
 Authority: The Swiss Oil Corporation.

## Strata.

Mississippian System.	Thickness	Depth
Gravel and clay, yellow, soft .....	2	2
Limestone, hard, gray .....	10½	12½
Clay, boulders and gravel, yellow, soft .....	10	22½
Limestone, dark gray, medium .....	40½	63
Limestone and shale, blue, medium .....	97	160
Limestone, white, hard .....	85	245
Shale, green, hard, flinty (New Providence) ..	25	270
Devonian System.		
Shale, black, soft (Chattanooga) .....	58	328
Limestone (cap rock), gray, hard .....	5	333
Limestone, oil "sand," hard .....	9	342
Total depth .....		342

## Log No. 1089

J. E. Moulder, No. 14, lessor. Authority: The Swiss Oil Corporation.

## Strata.

Mississippian System.	Thickness	Depth
Soil, yellow, soft .....	25	25
Limestone, gray, hard .....	6	31
Mud, blue, soft .....	5	36
Limestone, hard, gray .....	72	108
Sand, light, hard .....	5	113
Limestone, hard, gray .....	27	140
Limestone, white, hard .....	75	215
Limestone, green, soft .....	25	240
Limestone, yellow, hard, (New Providence) ..	19	259
Shale, green, soft, (New Providence) .....	13	272
Devonian System.		
Shale, black, soft (Chattanooga) .....	55	327
Limestone (cap rock), gray, hard .....	12	339
Limestone, "sand," brown, soft .....	11	350
Limestone, "sand," light, hard .....	2	352
Total depth .....		352

**Log No. 1090**

J. E. Moulder, No. 15, lessor. Commenced: September 12, 1919.  
Completed: September 23, 1919. Production: Dry. Authority: The  
Swiss Oil Corporation.

Strata.

Mississippian System.	Thickness	Depth
Soil, soft .....	3	3
Clay, yellow, soft .....	13	16
Limestone, blue, hard .....	32	48
Mud, blue, soft (fresh water) .....	4	52
Limestone, blue, hard .....	26	78
Water sand, gray, soft .....	6	84
Shale, blue, soft .....	5	89
Limestone, blue, hard .....	21	110
Limestone, yellow, soft (sulphur water) .....	8	118
Limestone, blue, hard .....	20	138
Limestone, white, hard .....	52	190
Limestone, gray, soft .....	7	197
Limestone, blue, hard .....	33	230
Shale, gray, soft .....	47	277
Devonian System.		
Shale, brown, soft .....	58	335
Limestone (cap rock), gray, hard .....	4	339
Limestone, "sand," gray, hard .....	5	344
Limestone, white, hard (salt water) .....	1	345
Total depth .....		345

**Log No. 1091**

J. E. Moulder, No. 16, lessor. Production: Dry. Authority: The  
Swiss Oil Corporation.

Strata.

Mississippian System.	Thickness	Depth
Clay and gravel, soft .....	18	18
Limestone, hard, (fresh water, top; sulphur water, bottom) .....	117	135
Limestone, white .....	55	190
Limestone, gray .....	30	220
Limestone, blue .....	40	260
Limestone, green, hard (little gas) .....	20	280
Devonian System.		
Shale, black (Chattanooga) .....	58	338
Limestone (cap rock) .....	3	341
Limestone "sand," (small show of oil) .....	10	351
Limestone, light (water) .....	5	356
Total depth .....		356

**Log No. 1092**

J. E. Moulder, No. 17, lessor. Completed: October 29, 1919.  
 Production: Dry. Authority: The Swiss Oil Corporation.

## Strata.

Mississippian System.	Thickness	Depth
Clay boulders, red .....	40	40
Limestone, blue .....	110	150
Limestone, white .....	110	260
Shale, green .....	5	265
Devonian System.		
Shale, black (Chattanooga) .....	50	315
Shale, brown .....	13	328
Limestone (cap rock) .....	5	333
Sand .....	20	353
Silurian System.		
Shale, blue .....	21	374
Limestone, blue .....	9	383
Total depth .....		383

**Log No. 1093**

J. E. Moulder, No. 18, lessor. Authority: The Swiss Oil Corporation.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	8	8
Limestone boulders, gray, soft .....	3	11
Limestone, white, extra hard .....	9	20
Limestone, black, soft .....	4	24
Limestone and mud, yellow, soft (water at 40) .....	21	45
Limestone, black, hard .....	40	85
Limestone and flint, white, hard .....	5	90
Limestone, gray, soft .....	30	120
Limestone, white, hard .....	30	150
Limestone, gray, hard .....	25	175
Spar, light, and shale, gray, soft .....	40	215
Devonian System.		
Shale, black, hard .....	47	262
Shale, brown, hard .....	12	274
Limestone (cap rock), soft .....	3	277
Limestone, gray, soft .....	2	279
Limestone, black .....	1	280
Total depth .....		280

**Log No. 1094**

J. E. Moulder, No. 19, lessor. Production: Dry. Authority: The Swill Oil Corporation.

Strata.

Mississippian System.	Thickness	Depth
Surface, yellow, soft .....	30	30
Limestone, gray, hard .....	4	34
Mud, blue, soft .....	1	35
Limestone, gray, hard .....	70	105
Sand, light, hard .....	7	112
Limestone, gray, hard .....	32	144
Limestone, white, hard .....	80	224
Limestone, green, soft .....	25	249
Limestone, yellow, hard .....	20	269
Shale, green, soft .....	16	285
Devonian System.		
Shale, black, soft (Chattanooga).....	54	339
Shale, brown, soft .....	4	343
Limestone (cap rock), gray, hard .....	8	351
Limestone, brown, hard .....	12	363
Limestone, dark, hard .....	7	370
Silurian System.		
Limestone, blue, soft .....	23	393
Total depth .....		393

**Log No. 1095**

Joe Shipley, No. 1, lessor. Commenced: June 30, 1919. Completed: August 26, 1919. Authority: The Swiss Oil Corporation.

Strata.

Mississippian System.	Thickness	Depth
Clay .....	32	32
Limestone, yellow .....	6	38
Limestone, white (mud seam 2 feet) .....	45	83
Limestone, gray (water) .....	12	95
Limestone, brown (sulphur water at 162), (black sulphur water at 181) .....	144	239
Limestone, brown, sandy, very hard .....	19	258
Shale, brown, hard .....	9	267
Limestone, brown .....	43	310
Soapstone .....	6	316
Limestone, blue .....	17	333
Limestone, blue, shelly (gas at 365) .....	43	376
Limestone, white, sandy, (show of oil at 384) ..	14	390
Limestone, blue, shelly (gas at 408 and 550)..	248	638

Devonian System.	Thickness	Depth
Shale, black (Chattanooga) .....	66½	704½
Limestone (cap rock) .....	4½	709
Limestone, white .....	11	720
Limestone and sand, gray, very hard .....	22	742
Silurian System.		
Limestone, "sand," (show of oil) .....	3	745
Limestone, blue (show of oil) .....	4	749
Limestone, gray, and sand, gritty .....	22	771
Limestone, soft .....	4	775
Limestone, blue, rotten (show of oil at 780) ..	31	806
Limestone, gray, and sand .....	14	820
Limestone, blue .....	19	839
Total depth .....		839

**Log No. 1096**

Joe Shipley, No. 2, lessor. Commenced: September 1, 1919.  
 Completed: October 28, 1919. Authority: The Swiss Oil Corporation.  
 Strata.

Mississippian System.	Thickness	Depth
Clay, yellow .....	10	10
Clay and gravel, yellow .....	30	40
Limestone, white (water at 95) .....	60	100
Limestone, gray .....	15	115
Limestone, brown (white sulphur water at 135 black sulphur water at 175) .....	60	175
Limestone, brown, sandy, very hard .....	25	200
Limestone, brown (black sulphur water at 250)	50	250
Limestone, blue, flinty .....	50	300
Limestone (show of oil) .....	6	306
Limestone, white .....	32	338
Limestone, broken .....	22	360
Limestone, gray .....	90	450
Limestone, brown .....	202	652
Devonian System.		
Shale, brown (Chattanooga) .....	76	728
Limestone (cap rock) .....	6	734
Limestone, white .....	19	753
Limestone, brown, sandy .....	24	777
Silurian System.		
Limestone, blue (show of oil 776-780) .....	4	781
Limestone, gray, gritty .....	22	803
Limestone, rotten .....	22	825
Limestone, brown .....	6	831
Shale, soft and slick .....	4	835
Limestone, gray .....	35	870
Limestone, blue .....	13	883
Total depth .....		883



#### DEVONIAN AND SILURIAN LIMESTONE

The Jeffersonville is of Devonian age, and the Louisville Limestone is of Silurian age. The reason the driller frequently cannot note the change is at once apparent. Photo in eastern Louisville Quarry, by Charles Butts.

**Log No. 1097**

Bryan, No. 1, lessor. Tampa-Kentucky Oil Co., lessee. Location: On the Simpson-Warren County line. Completed: July 10, 1920. Authority: Mr. Reep.

## Strata.

Mississippian System.	Thickness	Depth
Lime, variable .....	848	848
Devonian System.		
Shale, black (Chattanooga) .....	61	909
Limestone (cap rock), oil .....	5½	914½
Limestone, "sand" .....	25	939½
Limestone, harder .....	6½	946
Total depth .....		946

**Log No. 1098**

Bryan, No. 2, lessor. Tampa-Kentucky Oil Co., lessee. Location: On the Simpson-Warren County line. Drilled: In 1920. Authority: Mr. Reep.

## Strata.

Mississippian System.	Thickness	Depth
Limestone, variable .....	842½	842½
Devonian System.		
Shale, black (Chattanooga) .....	61½	904
Limestone (cap rock), oil .....	3	907
Limestone, "sand" (first pay) .....	8	915
Limestone, brown .....	4	919
Limestone, white, hard (second pay) .....	24	943
Total depth .....		943

**Log No. 1099**

Widow of George Nye, No. 1, lessor. Shrout and Wright, lessee. Completed: October, 1919. Authority: The Big Dipper Oil Company.

## Strata.

Mississippian System.	Thickness	Depth
Soil, dark, soft .....	4	4
Limestone, light and dark, hard (sulphur) ...	150	154
Limestone (gas) .....	126	280
Limestone, light and dark, hard .....	62	342
Limestone, brown (sand), (good show of oil) ..	17	359
Limestone, dark, light, hard .....	315	674

Devonian System.	Thickness	Depth
Shale, dark, hard .....	62	736
Limestone (cap rock), light, dark, hard .....	15	751
Limestone, white, hard .....	8	759
Limestone, brown, sandy, hard .....	15	774

## Silurian System.

Limestone, gray, hard .....	30	804
Flint, brown, hard .....	5	809
Limestone, brown, sandy, hard .....	8	817
Limestone, brown, dark, hard .....	19	836
Limestone, brown, hard .....	48	884
Limestone, white, soft .....	20	904
Limestone and salvage, blue, soft .....	101	1,005
Total depth .....		1,005

## Log No. 1100

S. Purdue, No. 1, lessor. Completed: In 1920. Authority: The Big Dipper Oil Company.

## Strata.

Mississippian System.	Thickness	Depth
Limestone .....	904	904

## Devonian System.

Shale, black (Chattanooga) .....	76	980
Limestone .....	35	1,015

## Silurian System.

Limestone, "sand," first .....	11	1,026
Limestone, red rock .....	9	1,035
Limestone, "sand," second .....	11	1,046
Total depth .....		1,046



**Log No. 1101**

William Stone, No. 1, lessor. Completed: In 1920. Authority:  
The Big Dipper Oil Company.

## Strata.

Mississippian System.	Thickness	Depth
Limestone .....	1,005	1,005
Devonian System.		
Shale, black (Chattanooga) .....	78	1,083
Limestone .....	102	1,185
Oil sand, first .....	15	1,200
Ordovician System.		
Limestone .....	15	1,215
Limestone, "sand" .....	8	1,223
Limestone and red rock .....	9	1,232
Limestone, "sand" .....	13	1,245
Limestone .....	5	1,250
Total depth .....		1,250

NOTE—The base of the Devonian and the top of the Silurian is within the 102 feet of limestone above 1,185 feet.

**Log No. 1102**

J. T. Hunter, No. 1, lessor. Completed: September 11, 1919.  
Show of oil: At 424 feet. Oil and gas from 941 to 947 feet. Authority: The Big Dipper Oil Company.

## Strata.

Mississippian System.	Thickness	Depth
Soil .....	2	2
Limestone, gray .....	43	45
Limestone, white .....	35	80
Limestone, blue .....	16	96
Limestone, gray .....	12	108
Limestone, brown .....	38	146
Limestone, gray .....	22	168
Limestone, shelly .....	20	188
Limestone, white .....	20	208
Limestone, brown .....	122	330
Limestone, gray .....	70	400
Limestone, brown .....	15	415

Mississippian System.		Thickness	Depth
Limestone, gray .....		38	453
Limestone, brown .....		70	523
Limestone, gray .....		77	600
Limestone, black .....		195	795
Devonian System.			
Shale, black (Chattanooga) .....		75	870
Limestone .....		94	964
Limestone (red rock) .....		2	966
Total depth .....			966

NOTE—The base of the Devonian and the top of the Silurian is found in the 94 feet of limestone above 964 feet.

#### Log No. 1103

John Thomas, No. 1, lessor. Commenced: January 12, 1920.  
Authority: The Big Dipper Oil Company.

Strata.

Mississippian System.		Thickness	Depth
Limestone .....		410	410
Devonian System.			
Shale, black (Chattanooga) .....		63	473
Limestone .....		7	480
Limestone, "sand" .....		15	495
Limestone .....		12	507
Total depth .....			507

#### Log No. 1104

Robert Lawrence, No. 1, lessor. Completed in January, 1920.  
Authority: The Big Dipper Oil Company.

Strata.

Mississippian System.		Thickness	Depth
Limestone .....		339	339
Devonian System.			
Shale, black (Chattanooga) .....		60	399
Limestone .....		11	410
Limestone, "sand" .....		7	417
Limestone .....		3	420
Total depth .....			420

**Log No. 1105**

Tom Lawrence, No. 2, lessor. Commenced: November 20, 1919.  
Completed: December 31, 1919. Production: Dry. Authority: The  
Big Dipper Oil Company.

Strata.

	Thickness	Depth
Mississippian System.		
Limestone .....	380	380
Devonian System.		
Shale, black (Chattanooga) .....	58	438
Limestone .....	6	444
Limestone, first "sand" .....	26	470
Silurian System.		
Limestone .....	32	502
Limestone, second "sand" .....	16	518
Limestone .....	12	530
Total depth .....		530

**Log No. 1106**

Henry Lawrence, No. 2, lessor. Commenced: October 16, 1919.  
Completed: November 15, 1919. Production: Pumping 25 barrels  
daily, flush. Authority: The Big Dipper Oil Company.

Strata.

	Thickness	Depth
Mississippian System.		
Limestone .....	345	345
Devonian System.		
Shale, black (Chattanooga) .....	35	380
Limestone .....	5	385
Limestone, first "sand" .....	10	395
Limestone .....	45	440
Total depth .....		440

NOTE—The Devonian-Silurian contact is within the last 45 feet.

**Log No. 1107**

Henry Lawrence, No. 3, lessor. Commenced: November 18, 1919.  
Completed: December 5, 1919. Production: Started pumping 40 bar-  
rels daily. Authority: The Big Dipper Oil Company.

Strata.

	Thickness	Depth
Mississippian System.		
Limestone .....	339	339
Devonian System.		
Shale, black (Chattanooga) .....	58	397
Limestone, first "sand" .....	10	407
Limestone .....	13	420
Total depth .....		420

**Log No. 1108**

Henry Lawrence, No. 4, lessor. Commenced: December 18, 1919. Completed: January 15, 1920. Production: Pumped 200 barrels daily for 6 days, then pumped 100 barrels daily for 5 days. Authority: The Big Dipper Oil Company.

## Strata.

Mississippian System.	Thickness	Depth
Limestone .....	350	350
Devonian System.		
Shale, black (Chattanooga) .....	61	411
Limestone .....	6	417
Limestone, "sand" .....	12	429
Limestone .....	16	445
Total depth .....		445

**Log No. 1109**

Lydia Miller, No. 1, lessor. Authority: The Bertram Developing Company.

## Strata.

Mississippian System.	Thickness	Depth
Limestone .....	573	573
Devonian System.		
Shale, black (Chattanooga) .....	57	630
Limestone, white .....	23	653
Limestone, soft .....	12	665
Limestone .....	22	687
Silurian System.		
Limestone, second "sand" .....	8	695
Limestone .....	39	734
Total depth .....		734

**Log No. 1110**

Kister, No. 1, lessor. Completed: February 17, 1920. Authority: The Bertram Developing Company.

## Strata.

Mississippian System.	Thickness	Depth
Soil, red .....	10	10
Limestone, hard (little water) .....	66	76
Limestone, white .....	94	170

Mississippian System.	Thickness	Depth
Limestone, brown (water at 260) .....	130	300
Limestone, blue .....	25	325
Limestone, dark .....	105	430
Limestone, gray (water at 540) .....	125	555
Limestone, blue .....	18	573
Limestone, brown .....	39	612
Limestone, blue .....	62	674
Limestone, dark .....	76	750
Limestone, blue .....	50	800
Limestone, white and black .....	70	870
Shale, brown .....	5	875
Limestone .....	90	965
Shale, variable in color .....	139	1,104
Total depth .....		1,104

NOTE—This is a poorly kept record. The base of the Mississippian System and the top of the Devonian (Chattanooga Shale) is evidently within the 70 feet above 870. The change was not noted by the driller. The base of the Devonian and top of the Silurian is within the last 139 feet of the well.

#### Log No. 1111

J. P. Lowe, No. 1, lessor. Authority: The Bertram Developing Company.

Strata.

Mississippian System.	Thickness	Depth
Soil .....	70	70
Limestone .....	320	390
Shale, green (New Providence) .....	30	420
Devonian System.		
Shale, brown (Chattanooga) .....	60	480
Limestone (esp rock) .....	7	487
Limestone, "sand" .....	18	505
Shale, hard .....	55	560
Limestone, blue .....	20	580
Limestone, "sand," white .....	25	605
Limestone, blue .....	45	650
Ordovician System.		
Limestone .....	21	671
Limestone, salt water .....	16	687
Total depth .....		687

NOTE—The base of the Devonian and the top of the Silurian is within the 55 feet above 560 feet.

**Log No. 1112**

Tarrants, No. 3, lessor. Commenced: June 10, 1920. Completed: July 13, 1920. Authority: Stein, Johnson and Kersetter.

Strata.

Mississippian System.	Thickness	Depth
Soil .....	8	8
Boulders and clay .....	22	30
Limestone, black and white .....	419	449
Limestone, gas "sand" .....	4	453
Limestone oil "sand" .....	14	467
Limestone, black .....	6	473
Total depth .....		473

**Log No. 1113**

Ben F. Hewitt, No. 1, lessor. Commenced: August 9, 1919. Completed: August 27, 1919. Production: 48 hours after shot, well pumped 12 bbls. oil. Authority: The Swiss Oil Corporation.

Strata.

Mississippian System.	Thickness	Depth
Clay, red, soft .....	20	20
Limestone and caves, hard .....	60	80
Limestone, gray, hard .....	100	180
Limestone, light gray, sandy, soft (gas) .....	5	185
Limestone, white, medium hard .....	15	200
Limestone, sandy, soft (gas) .....	5	205
Limestone, white, hard .....	140	345
Limestone, white, sandy .....	55	400
Limestone, green, soft (New Providence) ...	40	440

Devonian System.

Shale, black, soft (Chattanooga) .....	52	492
Limestone (cap rock), black, hard .....	8	500
Limestone, "sand," gray, hard .....	3	503
Limestone, "sand," white, hard, (puff of gas) .....	7	510
Limestone, "sand," brown, medium hard ...	12	522
Limestone, gray, hard .....	3	525

Silurian System.

Limestone, gray, coarse, soft .....	7	532
Limestone, "sand," brown, soft (second) ...	10	542
Limestone, gray, coarse, soft .....	12	554
Limestone, "sand," brown, soft (third) .....	9	563
Limestone, "sand" .....	5	568
Total depth .....		568

**Log No. 1114**

B. F. Hewitt, No. 2, lessor. Commenced: September 8, 1919.  
 Authority: The Swiss Oil Corporation.

## Strata.

Mississippian System.	Thickness	Depth
Clay, red, soft .....	10	10
Limestone, dark .....	90	100
Limestone, white, sandy, hard .....	20	120
Limestone, brown, hard (sulphur water at 145) ..	40	160
Limestone, white, medium .....	11	171
Limestone, white, soft (gas and oil at 200) ..	104	275
Limestone, gray, hard (gas at 300) .....	25	300
Limestone, white, sandy, hard .....	50	350
Limestone, white, hard .....	50	400
Shale, green, soft (New Providence) .....	45	445
Devonian System.		
Shale, black, soft (Chattanooga) .....	50	495
Limestone (cap rock), gray, hard .....	11	506
Limestone, "sand," white, medium (first) ...	8	514
Limestone, "sand," brown, medium (oil) ...	13	527
Silurian System.		
Limestone (break), gray, medium .....	8	535
Limestone, "sand," brown, soft (second) (oil) .....	10	545
Limestone (break), gray, soft .....	12	557
Limestone, "sand," brown, medium (third oil)	8	565
Total depth .....		565

**Log No. 1115**

B. F. Hewitt, No. 3, lessor. Commenced: September 29, 1919.  
 Completed: October 23, 1919. Authority: The Swiss Oil Corporation.

## Strata.

Mississippian System.	Thickness	Depth
Clay, red, soft .....	30	30
Limestone, black, hard .....	50	80
Mud cave, soft .....	10	90
Limestone, black, hard (fresh water at 120) ..	30	120
Limestone, white, medium .....	20	140
Limestone, black, hard (sulphur water at 145)	10	150
Limestone, white, medium .....	15	165

## Mississippian System.

	Thickness	Depth
Limestone, black, hard (sulphur water at 170)	10	175
Limestone, white, medium .....	25	200
Limestone, dark, medium .....	100	300
Limestone (shells), dark, hard .....	50	350
Limestone, white, medium .....	50	400
Limestone, green, soft (New Providence) ....	60	460

## Devonian System.

Shale, black, soft (Chattanooga) .....	51	511
Limestone, black, hard .....	6	517
Shale, black, hard .....	3	520
Limestone, white, hard .....	8	528
Limestone, "sand," brown, medium (first oil)	20	548

## Silurian System.

Limestone (break), gray, soft .....	8	556
Limestone, "sand," brown, medium (second)		
(oil) .....	10	566
Limestone (break), gray, soft .....	12	578
Limestone, "sand," brown, medium (third)		
(oil) .....	8	586
Total depth .....		586

## Log No. 1116

B. F. Hewitt, No. 4, lessor. Commenced: September 28, 1919.  
Completed: October 30, 1919. Authority: The Swiss Oil Company.

## Strata.

## Mississippian System.

	Thickness	Depth
Clay, red .....	35	35
Limestone, hard .....	70	105
Mud cave .....	15	120
Limestone, black .....	50	170
Limestone .....	40	210
Shale .....	110	320
Limestone, sandy .....	70	390
Limestone, white .....	15	405
Limestone, sandy .....	25	430
Shale, green (New Providence) .....	40	470



Devonian System. Thickness    Depth

Shale, black (Chattanooga) .....	56	526
Shale, brown .....	8	534
Limestone, "sand" .....	12	546
Limestone (cap rock) .....	12	558

## Silurian System.

Limestone .....	11	569
Limestone, "sand" .....	6	575
Limestone (break) .....	10	585
Limestone, "sand" .....	7	592
Total depth .....		592

## Log No. 1117

B. F. Hewitt, No. 5, lessor. Commenced: December 25, 1919.  
Completed: January 17, 1920. Authority: The Swiss Oil Corporation.

## Strata.

Mississippian System. Thickness    Depth

Clay, red, soft .....	24	24
Limestone, and crevices, hard .....	46	70
Mud cave, soft (fresh water at 85) .....	15	85
Limestone, black, hard (sulphur water at 140) .....	55	140
Limestone, white .....	35	175
Limestone and shells, black .....	125	300
Limestone, white, sandy .....	95	395
Shale, green (New Providence) .....	40	435

## Devonian System.

Shale, black (Chattanooga) .....	50	485
Limestone (cap rock), brown .....	11	496
Limestone, white .....	9	505
Limestone "sand" (first) .....	15	520

## Silurian System.

Limestone "sand" (break) .....	10	530
Limestone "sand" (second), (oil) .....	8	538
Limestone "sand" (break) .....	14	552
Limestone "sand" (third) (oil) .....	12	564
Total depth .....		564

**Log No. 1118**

Hatcher, No. 1, lessor. Location: 1 mile northeast of Bowling Green. Commenced: November 25, 1919. Completed: January 30, 1920. Authority: The Bertram Developing Company.

## Strata.

Mississippian System.	Thickness	Depth
Boulders, flint, yellow clay .....	26	26
Limestone .....	44	70
Boulders, limestone and clay .....	10	80
Limestone .....	25	105
Cavern .....	10	115
Limestone, gray (oil) .....	119	234
Limestone, dark (gas at 286) .....	40	276
Limestone, gray .....	54	330
Limestone, black .....	25	355
Limestone, white .....	65	420
Limestone, blue and green (New Providence)	40	460

## Devonian System.

Shale, brown (Chattanooga) .....	53	513
Limestone (cap rock) .....	8	521
Limestone "sand," white (little oil) .....	4	525
Limestone, brown .....	28	553

## Silurian System.

Limestone, gray .....	12	565
Total depth .....		565

Water at 140 feet.

**Log No. 1119**

Hobdy, No. 1, lessor. Authority: The Bertram Developing Company.

## Strata.

Mississippian System.	Thickness	Depth
Soil and gravel .....	7	7
Cave .....	114	121
Cased .....	189	310
Limestone (light show of oil and gas) .....	20	336
Limestone .....	140	470
Limestone "sand" (oil) .....	10	480
Limestone .....	334	814



A MASSIVE PHASE OF THE SEBREE SANDSTONE

Certain outcrops of the above sandstone are exposed to the free, fairly salt air of the Seaboard. That mineral crystalline bed rock, causes the outcrops to be covered by the sand, and producing possibilities.

Devonian System.		Thickness	Depth
Shale, black (Chattanooga) .....		77	891
Limestone "sand," brown .....		10	901
Limestone "sand," white .....		25	926
Limestone, brown gray, (pay) .....		15	941
Silurian System.			
Limestone, gray .....		30	971
Limestone "sand," brown, (third pay) .....		12	983
Limestone (red rock) .....		4	987
Limestone, gray black .....		235	1,222
Total depth .....			1,222

**Log No. 1120**

Slate well, No. 1. Authority: The Bertram Developing Company.

## Strata.

Mississippian System.		Thickness	Depth
Soil and gravel .....		45	45
Limestone, gray, white .....		479	524
Limestone, black .....		10	534
Devonian System.			
Shale, black (Chattanooga) .....		68	602
Limestone (cap rock) .....		20	622
Limestone, oil "sand," first .....		20	642
Limestone, broken .....		40	682
Limestone, oil "sand," second .....		28	710
Limestone, shelly .....		49	759
Total depth .....			759

Fresh water at from 40 to 60 feet.

Sulphur water at 190 to 265 feet.

**Log No. 1121**

William Neale, No. 1. Location: 1 mile north of Woodburn.  
Drilled in May, 1920. Authority: Moran Oil & Refining Company.

## Strata.

Mississippian System.		Thickness	Depth
Clay, red .....		45	45
Limestone, red (water) .....		10	55
Limestone, gray .....		120	175
Limestone, brown (fresh water) .....		20	195
Limestone, gray .....		25	220

Mississippian System.	Thickness	Depth
Limestone, brown (sulphur water) .....	20	240
Limestone, light brown ..	100	340
Limestone, gray .....	110	450
Sand, brown (salt water) .....	10	460
Limestone, gray .....	65	525
Limestone, blue, sharp .....	135	660
Devonian System.		
Shale, brown (Chattanooga, .....	67	727
Limestone (cap rock) .....	3	730
Limestone, white .....	45	775
Silurian System.		
Limestone, blue, sandy (gas) .....	6	781
Limestone, gray, fine .....	6	787
Limestone, blue .....	28	815
Limestone, soft, shaly .....	400	1,215
Shale, hard .....	25	1,240
Shale, light brown .....	35	1,275
Shale, black .....	5	1,280
Limestone, blue .....	20	1,300
Limestone, brown, fine .....	15	1,315
Limestone, rotten .....	30	1,345
Total depth .....		1,345

NOTE—The Devonian-Silurian contact is within the upper 50 feet of the 400 feet above 1,215 feet in depth.

### Log No. 1122

Noah Manley, No. 1, lessor. Location: Oakland, R. F. D. No. 1. Commenced: March 24, 1920. Completed: April 9, 1920. Authority: The Kenco Oil Company.

#### Strata.

Mississippian System.	Thickness	Depth
Clay and gravel .....	18	18
Limestone (water at 50 and 165) .....	292	310
Shale, green .....	42	352
Devonian System.		
Shale, black (Chattanooga) .....	62	414
Limestone (cap rock) .....	4	418
Limestone "sand," brown, hard, (gas and oil) .....	14	432
Limestone (salt water) .....	5	437
Limestone and shale .....	48	485
Limestone "sand" (showing of oil) .....	9	494
Limestone, blue, hard .....	34	528
Total depth .....		528

NOTE—The Devonian-Silurian contact is midway in the 48 feet above 485 feet in depth.

**Log No. 1123**

Noah Manley, No. 3, lessor. Drilled in 1920. Authority: The Kenco Oil Company.

Strata.

Mississippian System.	Thickness	Depth
Limestone .....	314	314
Shale, green (New Providence) .....	44	358
Devonian System.		
Shale, black (Chattanooga) .....	52	410
Limestone (cap rock) .....	7	417
Limestone "sand" (gas) .....	3	420
Limestone "sand" (oil) .....	3½	423½
Limestone, gray .....	76½	500
Total depth .....		500

NOTE—This well finished in the Silurian.

**Log No. 1124**

Turner Farm, No. 3, lessor. Location: 3 miles from Bowling Green, Nashville Pike. Authority: A. B. Hughes and Son, drillers.

Strata.

Mississippian System.	Thickness	Depth
Limestone, hard (casing) .....	165	165
Limestone, variable .....	235	400
Limestone and flint, hard .....	200	600
Limestone .....	122	722
Devonian System.		
Shale, black (Chattanooga) .....	76	798
Limestone (cap rock) .....	16	814
Total depth .....		814

NOTE—Black sulphur water at 158 feet.

**Log No. 1125**

Perkins Lease, No. 2, lessor. Location: Davenport Oil Pool. Drilled in 1920.

Strata.

Mississippian System.	Thickness	Depth
Limestone .....	820	820
Devonian System.		
Shale, black (Chattanooga) .....	80	900
Limestone .....	105	1,005
Total depth .....		1,005

Oil at 940.

Black sulphur water at 185.

Cased off at 223.

NOTE—This well finished in the Silurian.

**Log No. 1126**

Fleenor Farm, No. 1, lessor. Location: 3 miles south of Bowling Green. Commenced: July 26, 1920. Authority: Giles Overton, driller.

## Strata.

Mississippian System.	Thickness	Depth
Clay .....	4	4
Limestone, gray .....	126	130
Limestone, brown .....	15	145
Limestone, gray, and flint, brown .....	75	220
Limestone, brown (good show of oil at 300) ..	80	300
Limestone, dark, flint, gray .....	100	400
Limestone, dark gray .....	47	447
Limestone, black (gas) .....	3	450
Limestone, oil "sand" (fair showing of oil) ..	14	464

NOTE—This well is entirely in the Mississippian.

**Log No. 1127**

Well in the Davenport Pool. Authority: The Leon Oil Producers Company.

## Strata.

Mississippian System.	Thickness	Depth
Limestone and cherty limestone .....	710	710
Devonian System.		
Shale, black .....	80	790
Limestone .....	20	810
Shale and "sand" .....	15	825
Limestone "sand" .....	5	830
Limestone, white .....	20	850
Silurian System.		
Limestone, on top of sand .....	10	860
Sand .....	10	870
Limestone, brown .....	20	890
Sand, blue .....	15	905
Limestone, white .....	5	910
Limestone (pay sand), (gas and oil) .....	10	920
Total depth .....		920

## Log No. 1129

Henry S. Chapman, lessor. (Deep Test.) Location: On the Davenport Farm. Authority: M. L. Chenoweth.

## Strata.

Mississippian System.	Thickness	Depth
Limestone, white .....	80	80
Cavern, mud .....	8	88
Limestone, white .....	932	1,020

## Devonian System.

Shale, brown (Chattanooga) .....	90	1,110
Limestone, dark gray .....	90	1,200
Limestone, oil "sand," dry .....	10	1,210

## Ordovician System.

Limestone, blue .....	90	1,300
Limestone, gray and white .....	100	1,400
Limestone, brownish gray, very hard .....	100	1,500
Limestone, gray .....	90	1,590
Limestone, red .....	12	1,602
Limestone, gray, soft .....	58	1,660
Limestone, white and gray .....	65	1,725
Limestone, blue gray, medium soft .....	375	2,100

## Mississippian System.

Limestone, pale brown and white, hard .....	100	2,200
Limestone, brown, hard, flinty, with particles of black limestone mixed .....	50	2,250
Limestone, dark brown, very hard .....	150	2,400
Limestone, dark brown .....	100	2,500
Limestone, light and brown chert, mixed ...	50	2,550
Limestone, gray and black, soft .....	50	2,600
Limestone, dark gray and brown, mixed, hard	100	2,700
Limestone, dark and light, hard .....	50	2,750
Limestone, dark gray, hard .....	50	2,800
Limestone, light gray, with black particles showing .....	50	2,850
Limestone, medium gray, very hard .....	75	2,925
Total depth .....		2,925

NOTE—Top of Trenton probably at 1,800 to 1,900. Trenton 700 to 900 feet. The Devonian-Silurian contact is within the 90 feet of Limestone above 1,200 feet in depth.



**Log No. 1130**

Edwin Willoughby, No. 1, lessor. Location: Near Sledge Pool and Bays Fork. Elevation: About 610 A. T.

Strata.		
Mississippian System.		Thickness Depth
Limestone .....	360	360
Devonian System.		
Shale, black (Chattanooga) .....	53	413
Limestone, blue .....	8	421
Limestone, brown .....	14	435
Silurian System.		
Limestone sand .....	17	452
Limestone .....	132	584
Limestone sand .....	29	613
Limestone .....	728	1,341
Limestone (Cap Rock), dark gray .....	5	1,352
Limestone (Trenton), (1st oil show) .....	65	1,417
Limestone, crystalized, hard .....	21	1,438
Limestone, (2nd show) .....	2	1,440

1st shot at 475 feet, 60 quarts.

2nd shot at 435 to 452 feet, 80 quarts.

Salt at 584.

NOTE—The Silurian-Devonian contact is within the 132 feet above 584 feet in depth.

**Log No. 1131**

J. W. McGuire, No. 1, lessor. Hoge Oil & Gas Co., lessee. Commenced: Aug. 14, 1919. Completed: Aug. 28, 1919. Contractor: Lloyd Roetramel. Rig: Steam star. Production: Oil. Plugged up well to 480 feet, and shot second sand with 20 quarts nitro glycerin.

Strata.		
Mississippian System.		Thickness Depth
Conductor .....	47	47
Limestone, (cased 175) .....	128	175
Limestone .....	142	317
Devonian System.		
Shale, black (Chattanooga) .....	68	385
Limestone (cap) .....	16	401
Limestone, 1st "sand" .....	12	413

Silurian System.	Thickness	Depth
Limestone, 2nd "sand" .....	12	425
Limestone, blue .....	50	475
Limestone, 3rd "sand" .....	5	480
Limestone, blue .....	18	498
Limestone, green .....	22	520
Total depth .....		520

**Log No. 1132**

J. W. McGuire, No. 2, lessor. Hoge Oil & Gas Co., lessee. Commenced: June 4, 1920. Completed: July 12, 1920. Contractor: Regal & Madison. Rig: New star No. 38.

## Strata.

Mississippian System.	Thickness	Depth
Conductor .....	14	14
Limestone, (cased 220) .....	206	220
Limestone .....	152	372

## Devonian System.

Shale, black (Chattanooga) .....	68	440
Limestone (cap and 1st "sand") .....	19	459
Limestone .....	6	465

## Silurian System.

Limestone, 2d "sand" .....	30	495
Limestone .....	39	534
Limestone, 3d "sand" .....	5	539
Limestone .....	5	544
Total depth .....		544

Shot 2nd sand 467 to 482½ with 60 quarts nitro glycerin.  
6½ feet anchor on bridge.

Cleaned out well to 515 feet.

80 feet of fluid in hole on Aug. 6, 1920.

**Log No. 1133**

J. W. McGuire, No. 3, lessor. Hoge Oil & Gas Co., lessee. Commenced: July 15, 1920. Completed: July 28, 1920. Contractor: Regal & Madison. Rig: New gasoline star No. 38. Production: Bailed ½ bbl. oil 30 minutes after shot. Aug. 6, one week after shot, fluid stood 158'4" in hole.

## Strata.

Mississippian System.	Thickness	Depth
Conductor, .....	38	38
Limestone, (cased 226) .....	188	226
Limestone .....	160	386

	Thickness	Depth
Devonian System.		
Shale, black (Chattanooga) .....	47	433
Limestone (cap) .....	13	446
Limestone, 1st "sand," .....	2	448
Limestone .....	10	458
Limestone, 2nd "sand" .....	21	479
Silurian System.		
Limestone .....	46	525
Limestone, 3d "sand" .....	15	540
Limestone .....	70	610
Ordovician System		
Limestone, white, 4th "sand" .....	51	661
Limestone .....	8	669
Limestone, 5th "sand" .....	5	674
Limestone .....	30	704
Total depth .....		704

NOTE—Shot third sand with 60 qts. nitro glycerin, 525 to 540.  
 Bridge stood at 579 after shot and cleaned out.

#### Log No. 1134

J. W. McGuire, No. 4, lessor. Hoge Oil & Gas Co., lessee. Completed: Aug. 10, 1920. Contractor: E. P. Meredith. Rig: Steam star. Production: Dry; oil shows only.

#### Strata.

	Thickness	Depth
Mississippian System.		
Conductor .....	41	41
Limestone, (cased 217) .....	176	217
Limestone .....	185	402
Devonian System.		
Shale, black (Chattanooga) .....	57	459
Limestone (cap) .....	9	468
Limestone, 1st "sand" .....	24	492
Silurian System.		
Limestone, (includes 2nd "sand") .....	54	546
Limestone, 3d "sand" .....	9	555
Limestone .....	77	632
Ordovician System.		
Limestone, 4th "sand" .....	26	658
Limestone .....	22	680
Limestone, 5th "sand" .....	15	695
Limestone, gray .....	42	737
Total depth .....		737

**Log No. 1135**

F. P. Tabor, No. 1, lessor. Hoge Oil & Gas Co., lessee. Completed: Nov. 12, 1919. Contractor: Russell & Gardner. Rig: Cyclone class D.

Strata.		
Mississippian System.	Thickness	Depth
Conductor, (8¼ case.) .....	40	40
Limestone, (cased 235) .....	195	235
Limestone .....	138	373
Devonian System.		
Shale, black (Chattanooga) .....	55	428
Limestone (cap) .....	8	436
Limestone, 1st "sand," (oil show) .....	5	441
Limestone .....	17	458
Silurian System.		
Limestone, 2nd "sand" .....	15	473
Limestone, gray .....	12	485
Total depth .....		485

NOTE—Shot second sand with 20 qts. nitro glycerin and made good shot.

**Log No. 1136**

F. P. Tabor, No. 2, lessor. Hoge Oil & Gas Co., lessee. Commenced: Aug. 19, 1920. Completed: Oct. 12, 1920. Contractor: E. P. Meredith. Rig: Steam star. Production: Oil, well shot.

Strata.		
Mississippian System.	Thickness	Depth
Conductor .....	52	52
Limestone, (cased 252) .....	200	252
Limestone .....	65	317
Devonian System.		
Shale, black (Chattanooga) .....	55	372
Limestone (cap) .....	9	381
Limestone, 1st "sand" .....	4	385
Limestone .....	13	398
Silurian System.		
Limestone, 2nd "sand" .....	17	415
Limestone .....	69	484
Total depth .....		484

**Log No. 1137**

E. E. Buchanon, No. 1, lessor. Hoge Oil & Gas Co., lessee. Commenced: November 20, 1919. Completed: Dec. 28, 1919. Contractor: Reagle & Madison. Rig: Gasoline star.

## Strata.

Mississippian System.	Thickness	Depth
Conductor, (case. 8¼) .....	27	27
Limestone .....	184	211
Limestone .....	164	375
Devonian System.		
Shale, black (Chattanooga) .....	53	428
Limestone (cap) .....	5	433
Limestone, 1st "sand" .....	13	446
Limestone .....	4½	450½
Silurian System.		
Limestone, 2nd "sand" .....	22½	473
Limestone, gray .....	4½	477½
Total depth .....		477½

NOTE—Shot 16 feet second sand with 40 qts. nitro glyc. Dec. 19, 1919.

**Log No. 1138**

E. E. Buchanon, No. 2, lessor. Hoge Oil & Gas Co., lessee. Completed: Aug. 20, 1920. Contractor: Reagle & Madison. Rig: New gasoline star No. 38.

## Strata.

Mississippian System.	Thickness	Depth
Conductor, (case. 8¼) .....	30	30
Limestone, (cased 210) .....	180	210
Limestone .....	171	381
Devonian System.		
Shale, black (Chattanooga) .....	59	440
Limestone (cap) .....	5	445
Limestone, 1st "sand" .....	10	455
Limestone .....	10	465
Silurian System.		
Limestone, 2nd "sand" .....	20	485
Limestone .....	40	525
Limestone, 3d "sand" .....	15	540
Total depth .....		540

Driller's Note: Shot third sand with 60 qts. nitro glycerin. Good showing in second sand shot later 470 to 480.

**Log No. 1139**

E. E. Buchanan, No. 3, lessor. Hoge Oil & Gas Co. lessee, Completed: Aug. 24, 1920. Contractor: Regal & Madison. Rig: New gasoline star. Production: Good oil showing in all three sands.

Strata.

	Thickness	Depth
Mississippian System.		
Conductor, (case. 8¼) .....	27	27
Limestone .....	153	180
Limestone .....	162½	342½
Devonian System.		
Shale, black (Chattanooga) .....	56	398½
Limestone (cap) .....	10½	409
Limestone, 1st "sand" .....	7	416
Limestone .....	7	423
Silurian System.		
Limestone, 2nd "sand" .....	19	442
Limestone, 3d "sand" .....	49	491
Limestone .....	8	499
Total depth .....		499

Shot first sand 407 to 414 with 20 qts. Shot second sand 427 to 442 with 30 qts. Shot third sand 491 to 499 with 20 qts.

**WAYNE COUNTY.**

Production: Oil and Gas. Producing Sands: "Beaver" (Mississippian); Sunnybrook and Trenton (Ordovician).

**Log No. 1140**

J. H. Duncan, No. 1, lessor. Location: Monticello Precinct. Completed: Nov. 23, 1903. Production: Dry. Authority: New Domain Oil & Gas Co.

Strata.

	Thickness	Depth
Mississippian System.		
Soil, .....	44	44
Limestone, hard, (gas 303) .....	319	363
Shale, hard, white, soft .....	60	423
Devonian System.		
Shale, black, soft (Chattanooga) .....	34	457
Ordovician System.		
Limestone, hard .....	493	950
Limestone "sand" (Sunnybrook), hard .....	120	1,070
Limestone, hard .....	88	1,158
Total depth .....		1,158

**Log No. 1141**

J. H. Duncan, No. 3, lessor. Location: Monticello District. Completed: July 30, 1904. Production: Dry. Authority: New Domain Oil & Gas Co.

## Strata.

Mississippian System.	Thickness	Depth
Clay, red, soft .....	25	25
Shells, limy, soft .....	15	40
Limestone, white, hard, (water 65) .....	25	65
Limestone, gray, hard, (water & gas 400) ....	335	400
Limestone "sand," (Beaver) New Providence	10	410
Limestone, blue, (New Providence) .....	90	500
Total depth .....		500

**Log No. 1142**

J. A. Brown, No. 2, lessor. Completed: Oct. 29, 1904. Production: commenced producing 20 bbls. Authority: New Domain Oil & Gas Co.

## Strata.

Mississippian System.	Thickness	Depth
Limestone, white, hard .....	90	90
Limestone "sand," black, hard .....	50	140
Limestone, white, hard .....	20	160
Limestone, dark, soft .....	40	200
Limestone, dark, white, hard .....	225	425
Limestone "sand," (Stray) white, hard ....	13	438
Shale, hard, dark, soft .....	10	448
Limestone, blue, hard .....	32	480
Shale, hard, dark, soft .....	15	495
Limestone "sand," white, soft .....	52	547
Total depth .....		547

**Log No. 1143**

J. A. Brown No. 3, lessor. Completed: Mar. 16, 1905. Production: Dry; casing pulled, well plugged and abandoned. Authority: New Domain Oil & Gas Co.

## Strata.

Mississippian System.	Thickness	Depth
Soil, red, soft .....	43	43
Limestone, gray, hard .....	67	110
Cave and gravel, soft .....	63	173

Mississippian System.		Thickness	Depth
Limestone, white, hard .....		197	370
Limestone, blue soft .....		125	495
Limestone, blue, hard .....		75	570
Shale, hard, blue, soft, .....		92	662
Limestone "sand" (Beaver), gray, hard-New Providence .....		10	672
Shale, hard, blue, soft, New Providence .....		7	679
Devonian System.			
Shale, black, soft (Chattanooga) .....		40	719
Ordovician System.			
Limestone, black, soft .....		479	1,198
Limestone "sand" (Sunnybrook), brown, hard		220	1,418
Limestone, blue, hard .....		82	1,500
Total depth .....			1,500

NOTE—A Silurian component is regarded as forming the upper portion of the 479 feet of limestone above 1,198 feet in depth.

#### Log No. 1144

J. A. Brown, No. 10, lessor. Completed: Feb. 5, 1910. Location: Slick Ford Precinet. Production: Dry. Authority: New Domain Oil & Gas Co.

##### Strata.

Mississippian System.		Thickness	Depth
Clay, blue, soft .....		44	44
Limestone, white, medium .....		200	244
Limestone, gray, medium .....		215	459
Grit, gray, hard .....		200	659
Shale, hard, blue, soft .....		68	727
Limestone "sand" (Beaver), gray, medium, New Providence .....		12	739
Shale, hard, blue, soft, New Providence .....		13	752
Total depth .....			752

#### Log No. 1145

W. M. Hill, No. 1, lessor. Location: Little South Fork. Completed: Dec. 13, 1911. Production: Dry; oil at 70; salt water at 75 and 390; sulphur water at 300; gas at 545 and 550; well was plugged and abandoned. Authority: New Domain Oil & Gas Co.

##### Strata.

Mississippian System.		Thickness	Depth
Sand, brown, soft .....		10	10
Clay, blue, soft .....		12	22



	Thickness	Depth
Mississippian System.		
Limestone, gray, hard .....	40	62
Shale, blue, soft .....	10	72
Limestone, hard, variable .....	470	542
Limestone "sand," black, hard .....	20	562
Limestone, blue, hard .....	60	622
Limestone, "grit," gray, hard .....	60	682
Shale, hard, blue, New Providence .....	18	700
Shale, hard, blue, soft, New Providence .....	18	718
Total depth .....		718

**Log No. 1146**

G. W. Roberts No. 1, lessor. Completed; June 30, 1913. Production: Dry; show of gas at 215, 310 and 370 feet. Authority: New Domain Oil & Gas Co.

Strata.

	Thickness	Depth
Mississippian System.		
Clay .....	11	11
Limestone, hard, variable .....	387	398
Shale, hard, mixed, soft .....	97	495
Limestone "sand" (Beaver), gray, hard New Providence .....	13	508
Shale, hard, blue, soft, New Providence .....	21	529
Total depth .....		529

**Log No. 1147**

J. L. Dobbs, No. 1, lessor. Completed: Oct. 1, 1914. Production: Dry; casing pulled and well abandoned. Authority: New Domain Oil & Gas Co.

Strata.

	Thickness	Depth
Pennsylvanian System.		
Clay .....	9	9
Sandstone .....	91	100
Mississippian System.		
Clay shale, blue .....	175	275
Shale .....	180	455
Limestone, gray .....	40	495
Limestone, white .....	300	795
Limestone, gray .....	50	845
Limestone, black .....	175	1,020
Shale, hard, mixed .....	110	1,130
Limestone "sand" (Beaver), New Providence .....	15	1,145
Shale, hard, blue, New Providence .....	7	1,152
Total depth .....		1,152

**Log No. 1148**

J. L. Dobbs, No. 3, lessor. Completed: Dec. 12, 1914. Production: showing for 15 bbls. Authority: New Domain Oil & Gas Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Sandstone .....	125	125
Mississippian System.		
Clay and shale, blue and red .....	355	480
Limestone, gray, white .....	390	870
Limestone, black .....	175	1,045
Shale, hard, mixed .....	125	1,170
Limestone "sand" (Beaver), New Providence .....	12	1,182
Shale, hard, blue, New Providence .....	10	1,192
Total depth .....		1,192

**Log No. 1149**

J. L. Dobbs, No. 5, lessor. Completed: April 3, 1915. Production: Dry; casing pulled and well abandoned. Authority: New Domain Oil & Gas Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay .....	10	10
Sandstone .....	90	100
Clay, shale, blue, and red .....	330	430
Mississippian System.		
Limestone, gray .....	50	480
Limestone, white .....	300	780
Limestone, gray .....	50	830
Limestone, black .....	175	1,005
Shale, hard, mixed .....	135	1,140
Limestone "sand" (Beaver), New Providence .....	10	1,150
Shale, hard, blue, New Providence .....	6	1,156
Total depth .....		1,156

**Log No. 1150**

J. L. Dobbs, No. 6. lessor. Completed: April 26, 1915. Production: production first day was 5 bbls. Authority: New Domain Oil & Gas Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Clay, yellow .....	9	9
Sandstone, yellow .....	25	34
Shale, blue .....	150	184
Shale, red .....	50	234
Mississippian System.		
Shale, blue .....	50	284
Shale, red .....	20	304
Shale, blue .....	50	354
Limestone gray .....	50	404
Limestone, white .....	300	704
Limestone, gray .....	50	754
Limestone, black .....	175	929
Shale, hard, mixed .....	127	1,056
Sand (Beaver), brown, New Providence .....	15	1,071
Shale, hard, blue, New Providence .....	5	1,076
Total depth .....		1,076

**Log No. 1151**

Riley Correll, No. 1, lessor. Completed: Feb. 21, 1905. Production: Dry. Gas at 276 feet. Authority: New Domain Oil & Gas Co.

## Strata.

Mississippian System.	Thickness	Depth
Shale, soft, red, loose .....	17	17
Limestone, white, hard .....	21	38
Gravel and cave, soft .....	10	48
Limestone, white, hard .....	50	98
Limestone, gray, hard .....	12	110
Gravel and cave, red, soft .....	30	140
Limestone, white, hard .....	210	350
Shale, hard, blue, soft New Providence .....	63½	413½
Limestone, white, hard, soft, New Providence .....	25	438½
Shale, hard, blue, soft, New Providence .....	20	458½
Devonian System.		
Shale, hard, black, soft (Chattanooga) ....	41½	500
Ordovician System.		
Limestone, hard, soft .....	1,001½	1,501½
Total depth .....		1,501½

NOTE—A Silurian component is regarded as present forming the upper portion of the 1001½ feet above 1,501½ feet in depth.

**Log No. 1152**

Jordan McGowan, No. 1, lessor. Completed: Jan. 24, 1905. Production: Dry. Authority: New Domain Oil & Gas Co.

Strata.		
Mississippian System.		
	Thickness	Depth
Limestone, hard .....	320	320
Shale, hard, gray, soft, New Providence ....	32	352
Limestone "sand" (Beaver), hard, New Providence .....	3	355
Shale, hard, gray, soft, New Providence .....	2	357
Devonian System.		
Shale, black, soft (Chattanooga) .....	40	397
Ordovician System.		
Limestone, brown, gray, soft, hard .....	603	1,000
Shale (pencil cave), soft .....	3	1,003
Limestone, brown, gray, hard, soft .....	849	1,852
Limestone "sand," gray .....	35	1,887
Limestone "sand," .....	24	1,911
Shale, limy .....	10	1,921
Total depth .....		1,921

NOTE—A Silurian component is regarded as present forming the upper portion of the 603 feet above 1000 in depth.

**Log No. 1153**

W. F. Dick, No. 1, lessor. Completed: Dec. 23, 1904. Production: Dry. Authority: New Domain Oil & Gas Co.

Strata.		
Mississippian System.		
	Thickness	Depth
Clay and gravel, soft .....	11½	11½
Limestone .....	507½	519
Shale, hard, blue, soft, New Providence .....	8	527
Limestone, white (Beaver), sandy, New Providence .....	13	540
Shale, hard, blue, soft, New Providence .....	14	554
Devonian System.		
Shale, black, soft, Chattanooga .....	40	594
Shale, blue, soft, Chattanooga .....	10	604

Ordovician System.	Thickness	Depth
Limestone, Sandy, white, hard .....	11	615
Limestone, blue, loose .....	200	815
Limestone, white, black, hard, shelly .....	150	965
Limestone, blue, open .....	135	1,100
Limestone, black, white, shelly .....	100	1,200
Limestone, white, very sandy .....	12	1,212
Limestone, blue, soft .....	20	1,232
Limestone, gray, very hard .....	100	1,332
Limestone, gray, very shelly .....	150	1,482
Limestone, gray, very hard .....	25	1,507
Total depth .....		1,507

NOTE—The upper portion of the 200 feet above 815 is regarded as Silurian.

### Log No. 1154

H. C. Dobbs, No. 1, lessor. Completed: Mar. 16, 1916. Production: Dry; casing pulled and well abandoned. Authority: New Domain Oil & Gas Co.

#### Strata.

Mississippian System.	Thickness	Depth
Limestone, gray .....	75	75
Limestone, white .....	90	165
Limestone, gray .....	55	220
Shale (red rock) .....	40	260
Limestone, black .....	65	325
Limestone, blue .....	170	495
Shale, hard, blue New Providence .....	10	505
Limestone "sand" (Beaver), white, New Providence .....	5	510
Shale, hard, blue, New Providence .....	9	519
Total depth .....		519

Water at 40 feet; sulphur water at 160 feet; gas at 330 and 425 feet.

### Log No. 1155

E. R. Walker, No. 1, lessor. Completed: Oct. 7, 1904. Production: Dry; fresh water at 65 feet; oil show at 188 feet; small gas show at 360 feet. Authority: New Domain Oil & Gas Co.

#### Strata.

Mississippian System.	Thickness	Depth
Limestone, white, blue, sandy .....	620	620
Devonian System.		
Shale, black, soft (Chattanooga) .....	60	680

## Ordovician System.

	Thickness	Depth
Limestone, hard, soft, white, blue .....	822	1,502
Total depth .....		1,502

NOTE—The upper portion of the 822 feet above 1502 feet in depth is regarded as Silurian.

## Log No. 1156

Cyrus Brown, No. 7, lessor. Completed: June 14, 1915. Production: Dry; casing pulled and well abandoned. Authority: New Domain Oil & Gas Co.

## Strata.

## Mississippian System.

	Thickness	Depth
Clay .....	15	15
Limestone, gray .....	185	200
Limestone, white .....	200	400
Limestone, gray .....	50	450
Limestone, yellow .....	25	475
Limestone, black .....	101	576
Limestone, white .....	90	666
Limestone, blue .....	10	676
Limestone, white .....	94	770
Shale, blue, New Providence .....	8	778
Limestone, white, New Providence .....	8	786
Shale, blue, New Providence .....	8	794

## Devonian System.

Shale, black (Chattanooga) .....	2	796
Total depth .....		796

## Log No. 1157

Frank Hurt, No. 1, lessor. Completed: Sept. 25, 1907. Production: showed for 10 bbls. before shot; dry after shot. Authority: New Domain Oil & Gas Co.

## Strata.

## Mississippian System.

	Thickness	Depth
Soil .....	20	20
Limestone, white, hard .....	140	160
Shale, blue, soft .....	10	170
Limestone, white, hard .....	150	320
Limestone, black, soft .....	20	340

Mississippian System.		Thickness	Depth
Limestone, white .....		60	400
Limestone, gritty, brown, hard .....		170	570
Limestone, black, soft .....		140	710
Shale, hard, blue, New Providence .....		10	720
Limestone "sand," (oil) New Providence ...		14	734
Shale, hard, blue, soft, New Providence .....		26	760
Devonian System.			
Shale, black, soft (Chattanooga) .....		1	761
Total depth .....			761

**Log No. 1158**

Frank Hurt, No. 2, lessor. Completed: Dec. 11, 1907. Production: Dry. Authority: New Domain Oil & Gas Co.

## Strata.

Mississippian System.		Thickness	Depth
Limestone, dark, hard .....		126	126
Limestone, white, hard .....		160	286
Limestone, dark, medium .....		110	396
Limestone, black, medium .....		200	596
Limestone, white, medium .....		54	650
Limestone, black, medium .....		75	725
Shale, hard, medium, New Providence .....		2	727
Sand (Beaver), New Providence .....		10	737
Shale, hard, blue, New Providence .....		9	746
Total depth .....			746

**Log No. 1159**

William Foster, No. 1, lessor. Completed: June 26, 1907. Production: commenced producing 5 bbls. Authority: New Domain Oil & Gas Co.

## Strata.

Pennsylvanian System.		Thickness	Depth
Limestone "sand" .....		200	200
Mississippian System.			
Limestone, light .....		650	850
Limestone "sand" Beaver Creek, light, New Providence .....		15	865
Shale, hard, blue, New Providence .....		2	867
Total depth .....			867

**Log No. 1160**

William Foster, No. 2, lessor. Completed: Aug. 17, 1907. Production: commenced producing 25 bbls. Authority: New Domain Oil & Gas Co.

Strata.

Pennsylvanian System.	Thickness	Depth
Sand, light, hard .....	10	10
Mississippian System.		
Limestone, light, hard .....	860	870
Limestone "sand" (Beaver), dark, medium ..	13	883
Total depth .....		883

**Log No. 1161**

B. Foster, No. 1, lessor. Completed: Aug. 19, 1913. Production: Dry. Authority: New Domain Oil & Gas Co.

Strata.

Mississippian System.	Thickness	Depth
Shale, blue, soft .....	275	275
Limestone, hard, variable .....	565	840
Shale, hard, black .....	83	923
Limestone "sand," white, hard, New Providence .....	28	951
Shale, hard, blue, soft, New Providence .....	6	957
Total depth .....		957

**Log No. 1162**

B. Foster, No. 2, lessor. Location: Bell Hill Precinct. Production: commenced producing 10 bbls., Dec. 16, 1913. Authority: New Domain Oil & Gas Co.

Strata.

Mississippian System.	Thickness	Depth
Shale, soft .....	136	136
Limestone, gray, hard .....	30	166
Limestone, white, hard .....	320	486
Limestone, gray, hard .....	40	526
Limestone, black .....	200	726
Limestone and shale, hard .....	73	799
Limestone "sand" (Beaver), New Providence .....	21	820
Shale, hard, blue .....	5	825
Total depth .....		825



**Log No. 1163**

B. Foster, No. 3, lessor. Completed: Jan. 26, 1914. Production: Dry. Authority: New Domain Oil & Gas Co.

Strata.

Mississippian System.	Thickness	Depth
Shale, soft .....	130	130
Limestone, gray .....	30	160
Limestone, white .....	310	470
Limestone, black .....	200	670
Limestone "sand," white .....	122	792
Shale, hard, blue, New Providence .....	21	813
Shale, hard, blue, New Providence .....	44	857
Total depth .....		857

NOTE—The Berea sand (limestone) occurring within the New Providence formation was not recognized by the driller of this well.

**Log No. 1164**

T. T. Davis, No. 10, lessor. Location: Turkey Rock Pool, near Slickford. Commenced: Oct. 11, 1919. Completed: Nov. 8, 1919. Drilled by the Vulcan Oil Co. Authority: The Vulcan Oil Co.

Strata.

Pennsylvanian System.	Thickness	Depth
Shale, soft .....	19	19
Sandstone, .....	11	30
Shale, soft .....	10	40
Sandstone .....	160	200
Shale, hard .....	180	380
Mississippian System.		
Limestone, gray .....	70	450
Shale, hard .....	20	470
Limestone .....	30	500
Shale, hard .....	5	505
Limestone, (gas) .....	385	890
Limestone, black .....	195	1,085
Shale, hard .....	42	1,127
Limestone "sand" (Beaver) .....	20½	1,147½
Shale, (oil) .....	28	1,175½
Total depth .....		1,175½

**Log No. 1165**

T. T. Davis, No. 11, lessor. Location: Turkey Rock Pool, near Slickford. Commenced: Nov. 27, 1919. Completed: Jan. 15, 1920. Authority: The Vulcan Oil Co., drillers.

Strata.		
Pennsylvanian System.		Thickness Depth
Shale, soft .....	15	15
Sandstone .....	10	25
Shale, soft .....	15	40
Sandstone .....	180	220
Shale soft, and shale, hard .....	180	400
Mississippian System.		
Limestone, gray .....	75	475
Shale, hard .....	20	495
Limestone .....	380	875
Limestone, black .....	175	1,050
Limestone, blue .....	50	1,100
Shale, hard, New Providence .....	48	1,148
Limestone "sand" (Beaver), New Providence .....	12	1,160
Shale, hard, New Providence .....	3	1,163
Devonian System.		
Shale, black (Chattanooga) .....	29	1,192
Total depth .....		1,192

**Log No. 1166**

T. T. Davis, No. 12, lessor. Location: Turkey Rock Pool, near Slickford. Commenced: Feb. 21, 1920. Completed: April 16, 1920. Authority: The Vulcan Oil Co., drillers.

Strata.		
Pennsylvanian System.		Thickness Depth
Shale, soft .....	15	15
Shale, hard .....	15	30
Shale, soft .....	20	50
Sandstone .....	150	200
Shale, hard and soft .....	200	400
Mississippian System.		
Limestone .....	85	485
Shale, hard .....	12	497
Limestone .....	403	900
Limestone, black .....	250	1,150
Shale, hard, New Providence .....	37	1,187
Limestone "sand" (Beaver), New Providence .....	14½	1,201½
Shale, hard, New Providence .....	½	1,202
Devonian System.		
Shale, black (Chattanooga), (oil) .....	27	1,229
Total depth .....		1,229

## WEBSTER COUNTY.

Production: Small oil and gas. Producing Sands of commercial importance not recognized to date.

## Log No. 1167

Jim Trice, No. 1, lessor. Noon Oil & Gas Co., lessee. Location: 1½ miles northeast of Dixon, Ky. Spudded Dec. 13, 1918. Production: Dry. Driller: Morarity.

## Strata.

## Pennsylvanian System.

	Thickness	Depth
Soil, (conductor 16 in. case.) .....	20	20
Shale .....	80	100
Shale .....	100	200
Limestone .....	50	250
Sand, (water 270) .....	30	280
Shale .....	70	350
Limestone .....	50	400
Sand .....	50	450
Shale .....	150	600
Sand .....	50	650
Shale .....	100	750
Limestone .....	50	800
Shale, blue .....	100	900
Sand .....	25	925
Shale, white .....	75	1,000
Limestone, very hard .....	50	1,050
Shale .....	50	1,100
Limestone .....	25	1,125
Shale .....	35	1,160
Limestone, very hard .....	10	1,170
Sand .....	70	1,240
Shale .....	60	1,300
Sand .....	60	1,360
Shale .....	40	1,400
Limestone .....	50	1,450
Shale .....	150	1,600
Limestone .....	10	1,610
Sand .....	40	1,650
Shale .....	80	1,730
Sand, (water 1760) .....	45	1,775
Shale .....	25	1,800
Limestone .....	150	1,950
Shale .....	50	2,000
Sand .....	200	2,200

Mississippian System.	Thickness	Depth
Shale .....	50	2,250
Sand .....	50	2,300
Shale .....	100	2,400
Sand .....	100	2,500
Shale .....	25	2,525
Limestone .....	25	2,550
Unrecorded sedments .....	190	2,740
Total depth .....		2,740

NOTE—A very poor record indeed. The full Pennsylvanian section, Conemaugh, Carbondale (Alleghany) and Pottsville are here represented.

## WHITLEY COUNTY.

Production: Oil and gas. Producing Sands. Pottsville (Pennsylvanian); Maxton and Big Lime (Mississippian).

### Log No. 1168

S. M. Brown, No. 1, lessor. Completed: Jan. 16, 1905. Production: Dry; casing pulled, well abandoned. Authority: New Domain Oil & Gas Co.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Soil, yellow, soft .....	15	15
Shale, hard, black .....	85	100
Sandstone, gray, hard .....	10	110
Shale, hard, black, soft .....	25	135
Sandstone, white, hard .....	4	140
Sand, white, medium .....	12	152
Shale, brown, soft .....	33	185
Shale, black, soft .....	10	195
Coal, black, soft .....	2	197
Shale, brown, hard, limy .....	5	202
Shale, brown, soft .....	108	310
Sand, gray, soft .....	90	400
Shale, white, soft, limy, (gas 415) .....	15	415
Sand, white, soft .....	85	500
Shale, hard, black, soft .....	20	520
Sandstone, white, hard, shaly .....	15	535
Sand, gray, hard .....	165	700
Shale, hard, brown .....	20	720
Sand, yellow, hard .....	50	770
Shale, hard, yellow .....	5	775
Sand, white, hard, (oil show 800) .....	25	800

		Thickness	Depth
Pennsylvanian System.			
Sand, gray, hard .....		100	900
Shale, hard, black .....		54	954
Sandstone, gray hard .....		29	983
Coal, black, soft .....		2	985
Shale, hard, white, soft .....		10	995
Mississippian System.			
Shale (red rock), hard .....		18	1,013
Limestone and shells, red, very hard .....		37	1,050
Shale (red rock), very hard .....		50	1,100
Limestone (Big Lime), white, very hard .....		140	1,240
Limestone, blue, hard .....		5	1,245
Limestone, blue, hard .....		45	1,290
Shale, black, soft .....		6	1,296
Limestone, white, hard, (gas 1470) .....		234	1,530
Sand, white, hard .....		60	1,590
Shale, blue, soft .....		230	1,820
Total depth .....			1,820

### Log No. 1169

John Foley, No. 1, lessor. Iroquois Oil Co., Knoxville, Tenn., lessee. Location:  $\frac{3}{4}$  mile west of Williamsburg,  $\frac{1}{2}$  mile above mouth on Briar Creek. Commenced: September, 1920. Incomplete record secured July 1, 1921. Driller and authority: Tom Langton. Casing-head elevation: 1036 A. T. 2 feet above Lily coal. Production: Dry. Structural position: South flank of Williamsburg Anticline  $\frac{3}{4}$  mile from crest.

#### Strata.

Pennsylvanian System.		Thickness	Depth
Clay and soil .....		6	6
Sandstone .....		104	110
Shale, hard .....		30	140
Sand, hard .....		290	430
Shale, hard .....		10	440
Sand, hard .....		200	640
Shale, hard .....		20	660
Sand, hard, (oil show 728) .....		103	763
Shale, hard .....		7	770
Sand hard .....		42	812
Shale, hard .....		10	822
Sand, hard, (Williamsburg oil sand 865) .....		43	865
Shale, hard .....		25	890
Sand, hard, (oil, gas water 1122) .....		255	1,145

Mississippian System.		Thickness	Depth
Lime shell and shale, hard, (Little Lime) ....	20	1,165	
Limestone, hard (Big Lime) .....	80	1,245	
Shale .....	10	1,255	
Limestone (Big Lime) .....	245	1,500	
Shale, hard .....	10	1,510	
Flint rock .....	40	1,550	
Shale, hard .....	10	1,560	
Lime shell .....	20	1,580	
Shale, hard .....	20	1,600	
Lime shell .....	10	1,610	
Red rock .....	15	1,625	
Shale, hard .....	75	1,700	
Devonian System.			
Shale, brown (Chattanooga) .....	90	1,790	
Lime shell .....	20	1,810	
Silurian System.			
Shale, hard .....	40	1,850	
Limestone, brown .....	850	2,700	
Limestone, black .....	15	2,715	
Limestone, brown .....	635	3,350	
Total depth, July 1, 1921 .....		3,350	

NOTE—The Silurian-Ordovician contact occurs within the upper quarter of the 850 feet of brown limestone above 2,700 feet.

### Log No. 1170

Rose, No. 1, lessor. Iroquois Oil Co., lessee. Location:  $1\frac{1}{2}$  miles west of Williamsburg. Completed in the spring of 1920. Production: about 4,000,000 cu. ft. gas. Authority: E. C. Dicel.

Strata.		Thickness	Depth
Pennsylvanian System.			
Soil .....	2	2	
Sand .....	148	150	
Shale, hard .....	120	270	
Sand .....	320	590	
Shale, hard .....	20	610	
Sand .....	95	705	
Shale, hard .....	25	730	
Sand .....	85	815	
Shale, hard .....	83	898	
Sand, (some oil) .....	35	933	
Shale, hard .....	30	963	

Mississippian System.	Thickness	Depth
Shale (red rock), sandy .....	12	975
Shale, hard .....	15	990
Limestone (Little Lime) .....	20	1,010
Shale, hard .....	90	1,100
Limestone (Big Lime), (gas 1,265) .....	205	1,305
Total depth .....		1,305

**Log No. 1171**

Baptist Educational Society, No. 1, lessor. Empire Oil & Gas Co., lessee. Location: First left hand branch of Dog Slaughter Creek, 1 mile north of Dog Slaughter Creek. Completed: 1918. Contractors: J. H. Wilt Drilling Co. Authority: E. C. Dicel.

## Strata.

Pennsylvanian System.	Thickness	Depth
Drift, yellow, soft .....	6	6
Rock, very firm, yellow, hard .....	180	186
Shale, hard, black and shells .....	35	221
Shale, gritty, white, firm, and sand .....	85	306
Shale, black, soft, and coal .....	15	321
Sand, gray, hard .....	100	421
Shale, hard, black and soft .....	10	431
Shale, black, hard .....	7	438
Shale, hard, blue, sticky .....	30	468
Shale, hard, blue, and shells .....	70	538
Shale shell, gray, very hard, limy .....	20	558
Shale, sticky, red, soft .....	15	573
Sand, red, firm .....	10	583
Sand, pink, hard .....	5	588
Coal, black, soft .....	7	595
Sand, white, hard .....	15	610

## Mississippian System.

Shale, hard, red, soft .....	5	615
Shell, hard, dark .....	10	625
Shale, hard, white, soft .....	15	640
Sand, white, hard .....	20	660
Shale, hard, white, caving .....	10	670
Shale, hard, dark, limy .....	10	680
Shell, dark, hard .....	7	687
Limestone, hard, dark .....	12	699
Shale, hard, white, soft .....	5	704
Sand, white, hard, very close (Maxon) .....	40	744
Limestone, white, soft (Little Lime) .....	4	748

**Pennsylvanian System.**

	Thickness	Depth
Sand, white, hard .....	7	755
Limestone, white, soft, Big Lime (184) .....	34	789
Limestone, white, hard, Big Lime (184) .....	45	834
Limestone, brown, soft, Big Lime (184) ....	10	844
Limestone, brown, firm, Big Lime (184) ....	20	864
Limestone, brown, hard, Big Lime (184) ....	25	889
Limestone, brown, soft, Big Lime (184) ....	14	903
Flint, hard, dark, Big Lime (184) .....	15	918
Limestone, brown, soft, Big Lime (184) .....	6	924
Limestone flint, hard, dark, Big Lime (184) ..	15	939
Sandstone, gray, firm, limy, (odor of gas) ....	35	974
Shell, hard, dark .....	10	884
Limestone, white, soft .....	30	1,014
Sand, pink, soft, shaly .....	5	1,019
Sand, gray, hard .....	161	1,180
Shale, hard, white, soft .....	30	1,210
Shell, hard, black .....	10	1,220
Shale, hard, green, firm (New Providence) ....	80	1,300

**Devonian System.**

Shale, black, soft (Chattanooga) .....	90	1,390
Shale, hard, white, soft .....	60	1,450
Limestone, gray, hard .....	20	1,470

**Silurian System.**

Shale, hard, white, soft .....	10	1,480
Limestone, gray, hard .....	12	1,492
Shale, hard, white, soft .....	10	1,502
Limestone, gray, hard .....	10	1,512
Shale, hard, blue, firm .....	8	1,520
Limestone, black, hard .....	60	1,580
Total depth .....		1,580

**Log No. 1172**

H. M. Young, No. 1, lessor. Empire Oil & Gas Co., lessee. Location: about 13 miles from Williamsburg, and about 6 miles from Cumberland Falls, on the road from Williamsburg to Cumberland Falls. Head of Dog Slaughter Creek. Completed: Feb. 5, 1919. Authority: E. C. Dichel.

**Strata.****Pennsylvanian System.**

	Thickness	Depth
Drift, yellow, soft, (little water) .....	15	15
Sand, rock, yellow, hard .....	45	60
Sand, gritty, blue, firm, (hole full of water) ..	90	150
Shale, hard, black, soft .....	35	185
Sandstone, hard, white .....	10	195
Sand, gray, soft .....	55	250



## Pennsylvanian System.

	Thickness	Depth
Shale, hard, black, soft .....	10	260
Shale, white, hard, sandy .....	65	325
Shale, hard, brown, soft .....	40	365
Sandstone, gray, hard .....	10	375
Sand, white, medium, (settled quickly) .....	80	455
Shale, hard, black, soft .....	3	458
Shale, gray, hard, limy .....	14	472
Shale, hard, brown, soft .....	4	476
Sand, white, hard, medium .....	52	528
Coal, black, soft .....	1	529
Shale, hard, brown, soft .....	22	551
Sandstone, hard, gray, (little gas 555) .....	10	561
Shale, hard, blue, soft, and shells .....	74	635
Sandstone, hard, gray .....	10	645
Shale, hard, brown, soft .....	15	660
Sandstone, dark, very hard .....	10	670
Shale, hard, brown, soft .....	15	685
Sandstone, gray, hard .....	10	695
Shale, hard, brown .....	15	710
Limestone, black, very hard .....	5	715
Shale, brown soft .....	10	725
Sandstone, gray, hard .....	20	745
Shale and shells, hard, white, soft .....	45	790
Sandstone, gray, hard .....	10	800
Shale, hard, red, soft .....	40	840
Shale, hard, gray, soft .....	15	855
Sand, gray, medium .....	22	877
Shale, hard, brown, soft .....	11	888
Shale, hard, gray, soft .....	14	902
Sand, gray, hard .....	10	912

## Mississippian System.

Limestone, brown, hard .....	28	940
Shale, hard, gray, soft .....	5	945
Limestone, brown, hard .....	5	950
Shale, hard, gray, soft .....	10	960
Limestone, white, hard .....	25	985
Shale, hard, white, soft .....	5	990
Limestone, hard, white, Big Lime (180) ....	10	1,000
Limestone, hard, brown, Big Lime (180) ....	70	1,070
Limestone, hard, gray, Big Lime (180) .....	5	1,075
Limestone, hard, brown, Big Lime (180) ....	18	1,093
Sand, soft, gray, (light oil show), Big Lime (180) .....	5	1,098
Limestone, brown, hard, Big Lime (180) ....	7	1,105

Mississippian System.		Thickness	Depth
Limestone, hard, gray, Big Lime (180) .....		35	1,140
Limestone, gray, hard, Big Lime (180) .....		30	1,170
Sand, brown, limy, (50,000 cu. ft. gas at 1185)		31	1,201
Total depth .....			1,201

**Log No. 1173**

Nelson, No. 1, lessor. The Cumberland Bend Oil Co., lessee. Location:  $1\frac{1}{2}$  miles southeast of Williamsburg. Completed: in 1907. Shot Nov. 15, 1907, 90 qts. Production: about  $1\frac{1}{2}$  bbls. Authority: E. C. Dicel, Williamsburg.

Strata.

Pennsylvanian System.		Thickness	Depth
Sandstone, shale and coal .....		455	455
Sand, white .....		10	465
Sand, white .....		30	495
Limestone, white .....		10	505
Sand, white .....		70	575
Shale, hard .....		7	582
Shale, hard .....		3	585
Sand, white, (gas 595; oil 605) .....		55	640
Sand, gray .....		20	660
Shale, hard, shelly .....		55	715
Sand, gray .....		20	735
Shale, hard .....		31	766
Sand, (gas) .....		1	767
Sand, white, (oil 767 to 780) .....		13	780
Sand, white .....		25	805
Sand, white, (oil and gas 809) .....		6	811
Shale, hard .....		4	815
Shale, hard .....		10	825
Flint rock .....		$1\frac{1}{2}$	$826\frac{1}{2}$
Total depth .....			$826\frac{1}{2}$

**Log No. 1174**

G. W. Rains, No. 3, lessor. Location: mouth of Clear Fork Creek,  $1\frac{1}{2}$  miles southeast of Williamsburg. Cased Feb. 14, 1919. Shot with 10 qts. glycerine by the Ky. Glycerine Co. Recommenced drilling at 939 feet. Authority: E. C. Dicel.

Strata.

Pennsylvanian System.		Thickness	Depth
Sandstone, shale and coal .....		939	939
Shale, hard .....		3	942

Mississippian System.	Thickness	Depth
Shale and shells, hard, pink, (Mauch Chunk) ..	68	1,010
Sand, gray .....	15	1,025
Shale, hard, red .....	2	1,027
Limestone, light .....	51	1,078
Shale, hard, pink, light (Mauch Chunk) .....	48	1,126
Limestone, blue .....	5	1,131
Shale, hard, dark .....	46	1,177
Limestone, black, (show of oil) .....	14	1,191
Limestone, black .....	24	1,215
Shale, hard, light .....	6	1,221
Limestone, light, Big Lime (253) .....	63	1,284
Sand, light, Big Lime (253) .....	35	1,319
Limestone, light softer, Big Lime (253) .....	33	1,352
Limestone, light, dark, Big Lime (253) .....	31	1,383
Limestone, light, Big Lime (253) .....	20	1,403
Limestone, dark, Big Lime (253) .....	4	1,407
Limestone, light, Big Lime (253) .....	7	1,414
Limestone, light, Big Lime (253) .....	10	1,424
Limestone, gray, Big Lime (253) .....	11	1,435
Limestone, dark, Big Lime (253) .....	10	1,445
Limestone, gray, (oil show 1460-1463) Big Lime (253) .....	18	1,463
Limestone, light, Big Lime (253) .....	4	1,467
Limestone, gray, dark, Big Lime (253) .....	7	1,474
Sand, dark, gray .....	8	1,482
Limestone, dark, gray, & pebbles (gas 1515)	35	1,517
Limestone, dark gray, pebbles & crystal rock	5	1,522
Sand, pebble and crystal rock .....	4	1,526
Sand, gray, and limestone .....	6½	1,532½
Total depth .....		1,532½

### Log No. 1174-A.

Well at Saxton, ½ mile S. E. Saxton, between L. & N. and South-  
ern R. R., 20 feet or more above railroad.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Shale .....	130	130
Sandstone .....	30	160
Sandstone .....	10	170
Sandstone .....	10	180
Sandstone .....	30	210
Sandstone .....	35	245
Sandstone .....	30	275
Shale .....	20	295

## Pennsylvanian System.

	Thickness	Depth
Shale .....	5	300
Shale .....	30	330
Shale .....	50	380
Sandstone .....	45	425
Sandstone .....	35	460
Sandstone .....	35	495
Sandstone .....	30	525
Sandstone .....	30	555
Sandstone .....	30	585
Sandstone .....	25	610
Sandstone .....	25	635
Sandstone .....	20	655
Sandstone .....	20	675
Sandstone .....	15	690
Sandstone .....	15	705
Sandstone .....	15	720
Sandstone .....	15	735
Sandstone .....	10	745
Shale, (cased at 747, 6¼" casing) .....	10	755
Shale .....	55	810
Sandstone .....	30	840
Shale .....	55	895
Shale and sandstone (salt water 935) .....	40	935
Sandstone .....	10	945
Sandstone (more water, rerimmed 8¾") ....	15	960
Sandstone .....	10	970
Sandstone .....	15	985
Sandstone .....	10	995
Sandstone (8" hole to 1000, cased) .....	10	1,005
Sandstone .....	15	1,020
Sandstone .....	20	1,040
Sandstone .....	15	1,055
Sandstone .....	10	1,065
Sandstone .....	15	1,080
Sandstone (oil show) .....	12	1,092
Sandstone and shale .....	33	1,125
Sandstone .....	30	1,155

## Mississippian System.

Limestone .....	20	1,175
Pink rock .....	35	1,210
Shale, red .....	50	1,260
Sandstone .....	40	1,300
Limestone and shale .....	35	1,335
Limestone and shale .....	35	1,370
Shale and shell ....	30	1,400



THE BASAL POTTSVILLE OIL SAND

Cliffs or "rock houses" are common in the heavy bedded Pottsville conglomerate of Whitley and McCreary counties. This strata outcropping on Eagle Creek, below Cumberland Falls, goes under cover with the normal southeast dip and produces oil at Williamsburg, Kentucky.

Mississippian System.	Thickness	Depth
Shale and shell .....	25	1,425
Limestone .....	25	1,450
Limestone .....	25	1,475
Limestone .....	30	1,505
Limestone .....	25	1,530
Shale and limestone .....	30	1,560
Limestone .....	25	1,585
Limestone .....	25	1,610
Limestone .....	6	1,616
Total depth .....		1,616

**Log No. 1174-B.**

R. N. Adkins, No. 1, lessor. Location:  $1\frac{1}{2}$  miles S. W. Williamsburg, on 1st right-hand branch of Briar Creek, Whitley County, Ky. Production: Gas. Completed: 1920. Casing head elevation: 1042 A. T. Structural position: Nose of anticline, south flank near crest. Authority: C. E. Dicel, Williamsburg, Ky.

**Strata.**

Pennsylvanian System.	Thickness	Depth
Soil .....	5	5
Sandstone .....	85	90
Shale .....	175	265
Sandstone .....	162	427
Shale and coal .....	3	430
Sandstone .....	163	593
Shale (cased 600 $6\frac{1}{4}$ " casing) .....	32	625
Sandstone .....	115	740
Shale .....	10	750
Sandstone .....	55	805
Shale (coal due at 809) .....	60	865
Sandstone .....	35	900
Shale .....	23	923
Sandstone (oil) .....	20	943
Sandstone, broken .....	22	965
Shale .....	13	978

**Mississippian System.**

Shale, pink (Mauch Chunk) .....	72	1,050
Shale .....	50	1,100
Limestone .....	10	1,110
Shale .....	45	1,155
Limestone (Big Lime) .....	25	1,180
Shale .....	5	1,185
Limestone (Big Lime) .....	40	1,225



Mississippian System.		Thickness	Depth
Shale	.....	5	1,230
Limestone (gas 1365)	.....	135	1,365
Limestone (more gas at 1370)	.....	19	1,384
Total depth	.....		1,384

## WOLFE COUNTY.

**Production:** Oil and gas. **Producing Sands:** Corniferous (Devonian), Niagaran (Silurian).

### Log No. 1175

J. T. Day, No. 1, lessor. High Gravity Oil Co., lessee. Location: on Red River, 1 mile north of intersection of Wolfe, Breathitt and Magoffin County lines. Commenced: June 10, 1920. Completed: Aug. 27 1920. Drillers: A. A. Wolfe, J. C. Gibson.

#### Strata.

Pennsylvanian System.		Thickness	Depth
Conductor	.....	20	20
Shale, (cased 8¼, 215 ft.)	.....	460	480
Limestone	.....	10	490
Sand	.....	50	540
Shale	.....	60	600
S. Sand	.....	75	675
Shale	.....	90	765
Limestone	.....	10	775
Sand	.....	100	875
Shale	.....	5	880
Sand	.....	60	940
Shale	.....	5	945
Limestone, sandy	.....	10	955
Shale	.....	5	960
Mississippian System.			
Limestone (Little Lime)	.....	5	965
Shale (pencil cave)	.....	5	970
Limestone (Big Lime), (cased 6-5/8, 995)	..	105	1,075
Shale, white	.....	415	1,490
Sandstone (Wier)	.....	35	1,525
Shale, brown (Sunbury)	.....	10	1,535
Sandstone (Berea)	.....	30	1,565
Shale, gray	.....	35	1,600
Devonian System.			
Shale, brown (Chattanooga)	.....	155	1,755
Shale (boulder), very hard	.....	5	1,760
Shale, brown	.....	115	1,875

Devonian System.	Thickness	Depth
Shale, white .....	35	1,910
Limestone (Corniferous in part) .....	190	2,100
Limestone "sand," sharp, (Big 6) .....	55	2,155
Shale, black .....	5	2,160
Sand, limy .....	15	2,175
Shale, black .....	13	2,188
Shale (red rock) .....	2	2,190
Total depth .....		2,190
Water at 40 feet.		
Gas to light, 250 feet.		
Gas at 500 feet.		
Water at 625 feet.		
Finished in Red Rock, 2 feet.		

NOTE—The upper part only of the 190 feet of limestone above 2,100 feet in depth is Corniferous. The Devonian-Silurian contact comes at the base of the Corniferous here.

### Log No. 1176

J. D. Spencer, No. 1, lessor. Commenced: Sept. 3, 1918. Completed: Sept. 21, 1918. Gas from 1,227 to 1,231 feet; water from 1,231 to 1237 feet. Authority: The Ohio Oil Co.

Strata.

Pennsylvanian System.	Thickness	Depth
Soil, yellow, soft .....	14	14
Shale, hard, black, soft .....	16	30
Sand, brown, soft .....	170	200
Shale, hard, black, soft .....	30	230
Sand, hard, white .....	15	245
Shale, light, soft .....	170	415
Mississippian System.		
Limestone (Little Lime) white, soft, broken ..	20	435
Limestone (Big Lime), hard, white .....	80	515
Shale, hard, and shells, blue, broken .....	20	535
Limestone, hard, white .....	35	570
Shale and limestone, hard, blue, soft .....	40	610
Shale, hard, blue, soft .....	335	945
Rock, pink, soft .....	10	955
Shale, hard, Limestone, broken, soft .....	25	980
Devonian System.		
Shale, brown, soft (Chattanooga) .....	190	1,170
Fire clay, white, soft .....	10	1,180
Shale, black, soft .....	5	1,185
Limestone (cap rock), hard, blue .....	4	1,189



Devonian System.	Thickness	Depth
Limestone "sand," hard, brown .....	16	1,205
Limestone "sand," hard, brown, (little gas) ..	4	1,209
Limestone "sand," hard, gray, (water) ....	8	1,217
Total depth .....		1,217

**Log No. 1177**

Dr. A. Congleton, No. 1, lessor. Commenced: July 6, 1918. Completed: Aug. 9, 1918. Production: 1,000 cu. ft. gas was gotten from this well. Casing pulled and well plugged. Authority: The Ohio Oil Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, brown, soft .....	7	7
Sandstone, gray, soft .....	143	150
Shale and shells, brown and soft .....	185	335
Sand, hard, white, watery .....	20	355
Mississippian System.		
Limestone (Big Lime), hard, white .....	100	455
Shale, hard, and shells, soft .....	145	600
Shale, hard, blue, soft .....	375	975
Shale, hard, and shells .....	20	995
Devonian System.		
Shale, brown, soft (Chattanooga) .....	165	1,160
Shale, hard, blue, soft .....	26	1,186
Limestone (cap rock), hard, gray .....	10	1,196
Limestone "sand," hard, brown .....	13	1,209
Limestone "sand," gray, hard, (pay) .....	12	1,221
Limestone, hard, black .....	15	1,236
Silurian System.		
Limestone "sand," hard, brown .....	6	1,242
Limestone "sand," white, hard, (water) ....	7	1,249
Limestone, hard black .....	17	1,266
Limestone "sand," hard, white, (water) ....	9	1,275
Total depth .....		1,275

**Log No. 1178**

A. Rose, No. 1, lessor. Location: Lee City. Commenced: Nov. 15, 1918. Completed: Dec. 26, 1918. Well was dismantled on Jan. 4, 1919. 6¼ inch casing used at 835 feet. Authority: L. Beckner.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil and shale .....	105	105
Shale, hard .....	96	205
Coal .....	4	109

Pennsylvanian System.		Thickness	Depth
Coal .....		5	210
Shale, hard .....		130	340
Sand .....		210	550
Shale, hard .....		45	595
Sand and shell .....		10	605
Shale, hard .....		15	620
Sand and shell .....		15	635
Sand .....		80	715
Shale, hard .....		25	740
Mississippian System.			
Limestone (Little Lime) .....		10	750
Shale, hard .....		5	755
Sand .....		10	765
Limestone (Big Lime) .....		85	850
Sand, broken .....		540	1,390
Shale, black (Sunbury) .....		10	1,400
Shale, hard, blue (New Providence) .....		25	1,425
Devonian System.			
Shale, brown (Chattanooga) .....		245	1,670
Shale .....		25	1,695
Limestone (cap rock) .....		4	1,699
Limestone "sand" .....		6	1,705
Limestone, brown .....		121	1,826
Total depth .....			1,826

NOTE—The Devonian-Silurian contact occurs within the upper quarter of the 121 feet of limestone above 1,826 feet in depth.

### Log No. 1179

W. L. Hobbs, No. 7, lessor. Commenced: Oct. 9, 1919. Completed: Nov. 25, 1919. Production: commenced producing Nov. 29, 1919. Authority: The Superior Oil Corporation.

#### Strata.

Pennsylvanian System.		Thickness	Depth
Clay, yellow, soft, .....		20	20
Shale, dark, soft .....		85	105
Sand (mountain), yellow, soft .....		200	305
Shale, hard, white, medium .....		105	410
Mississippian System.			
Limestone, white, hard, (Big Lime) .....		90	500
Shale, hard, gray, medium .....		500	1,000

Devonian System.	Thickness	Depth
Shale, brown, hard (Chattanooga) .....	160	1,160
Fire clay, white, soft .....	43	1,203
Limestone (cap rock), gray, hard .....	6	1,209
Limestone "sand," gray, soft, (oil) .....	11	1,220
Limestone "sand," gray, hard .....	4	1,224
Total depth .....		1,224

**Log No. 1180**

W. L. Hobbs, No. 8, lessor. Location: Township in the fourth precinct. Commenced: Dec. 22, 1919. Completed: Jan. 14, 1920. Production: commenced producing Jan. 15, 1920. Authority: The Superior Oil Corporation.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil and shale, hard .....	100	100
Sand (mountain) .....	110	210
Shale, hard, and soft .....	150	360

## Mississippian System.

Limestone (Big Lime) .....	140	500
Shale, hard, and lime shells .....	530	1,030

## Devonian System.

Shale, black (Chattanooga) .....	160	1,190
Fire clay .....	16	1,206
Limestone (cap rock) .....	6	1,212
Limestone "sand," (oil pay 1222) .....	19	1,231
Total depth .....		1,231

**Log No. 1181**

W. L. Hobbs, No. 9, lessor. Commenced: Mar. 17, 1920. Completed: Mar. 31, 1920. Production: commenced producing April 2, 1920. Authority: The Superior Oil Corporation.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil and clay .....	10	10
Sand (mountain) .....	170	180
Shale, hard and soft .....	140	320

Mississippian System.	Thickness	Depth
Limestone (Big Lime) .....	105	425
Shale, hard, and shells .....	505	930

## Devonian System.

Shale, black (Chattanooga) .....	160	1,090
Fire clay .....	15	1,105
Limestone (cap rock), (Corniferous) .....	12	1,117
Limestone "sand," (Corniferous), (oil pay 1120-1130) .....	20	1,137
Total depth .....		1,137

## Log No. 1182

W. L. Hobbs, No. 10, lessor. Commenced: April 14, 1920. Completed: April 30, 1920. Production: Dry. Authority: The Superior Oil Corporation.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil and clay .....	20	20
Shale, hard .....	60	80
Sand (Mountain) .....	180	260
Shale, hard, and soft .....	100	360

## Mississippian System.

Limestone (Big Lime) .....	120	480
Shale, hard, and lime shells .....	450	930

## Devonian System.

Shale, brown (Chattanooga) .....	190	1,120
Fire clay .....	20	1,140
Limestone (cap rock) .....	5	1,145
Limestone "sand," (small show of oil) .....	12	1,157
Limestone, gray .....	33	1,190
Limestone "sand," (water) .....	24	1,214
Total depth .....		1,214

NOTE—The Devonian-Corniferous contact occurs toward the base of the 33 feet of limestone above 1190 feet. The lower part of the last 24 feet of the record is probably Silurian.

**Log No. 1183**

W. L. Hobbs, No. 11, lessor. Commenced: May 11, 1920. Completed: May 26, 1920. Production: Dry. Authority: The Superior Oil Corporation.

Strata.

Pennsylvanian System.	Thickness	Depth
Soil, soft .....	10	10
Shale, hard .....	15	25
Sand (Mountain), soft .....	165	190
Shale, hard .....	115	305
Mississippian System.		
Limestone (Big Lime), hard .....	125	430
Shale, hard, green, soft .....	30	460
Shale, hard .....	455	915
Devonian System.		
Shale, brown, soft (Chattanooga) .....	180	1,095
Fire clay .....	13	1,108
Limestone (cap rock), Corniferous .....	9	1,117
Sand, (dry) Corniferous .....	40	1,157
Total depth .....		1,157

**Log No. 1184**

A. C. Creech, No. 5, lessor. Location: 1 mile from Torrent. Completed: Feb. 2, 1920. Authority: The Sable Oil & Gas Co.

Strata.

Pennsylvanian & Mississippian Systems.	Thickness	Depth
Sandstone, shale, and limestone .....	1,068	1,068
Limestone (cap rock) .....	15	1,083
Limestone "sand," (Corniferous-Devonian) ..	10	1,093
Limestone .....	14	1,107
Total depth .....		1,107

**Log No. 1185**

A. C. Creech, No. 5, lessor. Location: 1 mile from Torrent. Completed and shot Feb. 27, 1920. First pay was from 1106 to 1121 feet. Second pay was from 1106 to 1132 feet. Authority: The Sable Oil & Gas Co.

Strata.

Pennsylvanian & Mississippian Systems.	Thickness	Depth
Sandstone, shale, and limestone .....	1,092	1,092
Limestone "sand," (Corniferous-Devonian) ..	40	1,132
Total depth .....		1,132

**Log No. 1186**

A. C. Creech, No. 6, lessor. Location: 1 mile from Torrent. Completed: June 1, 1920. Authority: The Sable Oil & Gas Co.

## Strata.

Pennsylvanian & Mississippian Systems.	Thickness	Depth
Conductor .....	10	10
Sandstone, shale and limestone .....	1,030	1,040
Limestone (cap rock), Corniferous .....	15	1,055
Limestone, (first pay) Corniferous .....	15	1,070
Limestone .....	10	1,080
Silurian System.		
Limestone, (second pay) .....	25	1,105
Total depth .....		1,105

**Log No. 1187**

A. F. Johnson, No. 1, lessor. Completed: July 12, 1910. Production: Dry; water at 100 and 220 feet; showing of oil and gas at 160 feet. Authority: New Domain Oil & Gas Co.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil and sand, white, soft .....	7	7
Sand and shale, hard, light, soft .....	43	50
Shale, hard, blue, soft .....	30	80
Sand, white, loose .....	8	88
Shale, hard, blue, soft .....	5	93
Sand, white, hard .....	127	220
Sand and shale hard, light, blue, loose .....	50	270
Shale, hard, light, blue .....	55	325
Shale, blue, soft .....	50	375
Mississippian System.		
Sand and shale, white, hard .....	25	400
Limestone (Big Lime), white, hard .....	80	480
Shale, variable in color and hardness .....	770	1,250
Limestone "sand," light, extra hard, (oil) ..	80	1,330
Limestone "sand," light, hard .....	10	1,340
Limestone "sand," blue, hard .....	30	1,370
Limestone "sand," light, hard .....	40	1,410
Limestone, light, hard .....	5	1,415
Limestone and shale, hard, light, soft .....	4	1,419
Shale (red rock), pink, soft, limy .....	5	1,424
Total depth .....		1,424

NOTE—The Mississippian-Devonian contact occurs in the lower part of the 770 feet of colored shale above 1,250 feet in depth.

**Log No. 1188**

George Spencer, No. 3, lessor. Commenced: Jan. 28, 1920. Completed: Mar. 4, 1920. Authority: The Superior Oil Corporation.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil and clay .....	16	16
Shale, hard .....	30	46
Sand (mountain) .....	155	201
Shale .....	25	226
Sand (water) .....	30	256
Shale, hard .....	90	346
Mississippian System.		
Limestone .....	104	450
Shale, hard and soft .....	470	920
Shale, hard, red .....	10	930
Shale, hard .....	15	945
Devonian System.		
Shale, brown, and fire clay .....	200	1,145
Limestone (cap rock) .....	29	1,174
Limestone "sand," (water 1197) .....	23	1,197
Total depth .....		1,197

**Log No. 1189**

Spencer Heirs, No. 12, lessors. Location: The fourth precinct. Commenced: Nov. 7, 1919. Completed: Jan. 17, 1920. Authority: The Superior Oil Corporation.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	6	6
Sandstone .....	9	15
Shale, hard, blue .....	85	100
Mississippian System.		
Limestone (Big Lime) .....	95	195
Shale, hard, green .....	205	400
Shale, hard, blue .....	320	720
Devonian System.		
Shale, brown (Chattanooga) .....	173	893
Fire clay .....	30	923
Limestone (cap rock) .....	5	928
Limestone "sand," top .....	2½	930½
Limestone "sand," salt .....	20	950½
Limestone, black .....	18½	969
Total depth .....		969

**Log No. 1190**

Spencer Heirs, No. 13, lessors. Completed: Jan. 14, 1920. Authority: The Superior Oil Corporation.

Strata.

	Thickness	Depth
Pennsylvanian System.		
Sandstone, shale and limestone .....	410	410
Mississippian System.		
Limestone (Big Lime) .....	135	545
Shale, hard, and lime shells .....	495	1,040
Devonian System.		
Shale (Chattanooga) .....	175	1,215
Fire clay .....	15	1,230
Limestone (cap rock) .....	6	1,236
Limestone "sand," (Corniferous) .....	9	1,245
Total depth .....		1,245

There was some salt water under pay.

**Log No. 1191**

Spencer Heirs, No. 14, lessors. Commenced: Feb. 2, 1920. Completed: Mar. 2, 1920. Authority: The Superior Oil Corporation. Production: Dry; well plugged and casing pulled.

Strata.

	Thickness	Depth
Pennsylvanian System.		
Soil and clay .....	15	15
Shale, hard .....	25	40
Sand (mountain) .....	160	200
Shale .....	30	230
Sand, white, (a little water) .....	30	260
Shale, hard .....	92	352
Shale, black .....	3	355
Limestone, (Big Lime) .....	85	440
Break, (Big Lime) .....	10	450
Limestone, (Big Lime) .....	10	460
Shale, hard and soft .....	465	925
Shale, hard, red .....	10	935
Limestone shells .....	2	937
Shale, hard .....	13	950
Devonian System.		
Shale, brown (Chattanooga) .....	165	1,115
Fire clay .....	24	1,139
Limestone (cap rock) .....	11	1,150
Limestone "sand," (oil show 1,155, salt water 1,160 & 1,200) .....	59	1,209
Total depth .....		1,209

NOTE—The Devonian-Silurian contact occurs within the lower half of the last 59 feet of limestone.



**Log No. 1192**

Spencer Heirs, No. 15, lessors. Commenced: Mar. 15, 1920. Completed: Apr. 1, 1920. Production: commenced producing Apr. 3, 1920. Authority: The Superior Oil Corporation.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil and clay .....	20	20
Shale, hard and soft .....	110	130
Sand (mountain) .....	140	270
Shale, hard, and soft .....	130	400
Mississippian System.		
Limestone (Big Lime) .....	115	515
Shale, hard, and lime shells .....	500	1,015
Shale .....	165	1,180
Fire clay .....	20	1,200
Limestone (cap rock) .....	14	1,214
Limestone "sand," (oil pay 1,220-1,230) ..	16	1,230
Total depth .....		1,230

**Log No. 1193**

Spencer Heirs, No. 16, lessors. Commenced: April 19, 1920. Completed: April 24, 1920. Authority: The Superior Oil Corporation.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil and clay .....	20	20
Shale, hard, and soft .....	110	130
Sand (Mountain) .....	160	290
Shale, hard and soft .....	80	370
Mississippian System.		
Limestone (Big Lime) .....	105	475
Shale, hard and soft .....	470	945
Devonian System.		
Shale (Chattanooga) .....	180	1,125
Fire clay .....	30	1,155
Limestone (cap rock) .....	14	1,169
Limestone "sand," (oil pay 1171-1180) ....	18	1,187
Total depth .....		1,187

**Log No. 1194**

Spencer Heirs, No. 17, lessors. Commenced: May 5, 1920. Completed: May 20, 1920. Production: Dry; casing pulled and well abandoned. Authority: The Superior Oil Corporation.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil, soft .....	10	10
Shale, hard, white, soft .....	130	140
Sand (Mountain), yellow, soft .....	150	290
Shale, hard .....	125	415

## Mississippian System.

Limestone (Big Lime), white, hard .....	105	520
Shale, hard, green, soft .....	30	550
Shale, hard .....	450	1,000

## Devonian System.

Shale, brown, soft (Chattanooga) .....	170	1,170
Fire clay, soft .....	18	1,188
Limestone (cap rock), hard .....	12	1,200
Limestone "sand," hard .....	49	1,249
Total depth .....		1,249

NOTE—The Devonian-Silurian contact occurs within the lower half of the last 49 feet of limestone.

**Log No. 1195**

Hall and Burke, No. 29, lessors. Commenced: Dec. 30, 1919. Completed: Jan. 17, 1920. Authority: The Superior Oil Corporation.

## Strata.

Pennsylvanian System.	Thickness	Depth
Soil and sand .....	18	18
Sand, gray, hard .....	218	236
Shale, dark, soft .....	60	296
Sand, white, hard .....	80	376

## Mississippian System.

Limestone (Big Lime), light, hard .....	120	496
Shale, light, medium .....	440	936

Devonian System.	Thickness	Depth
Shale, black, medium (Chattanooga) .....	140	1,076
Fire clay, light, medium .....	20	1,096
Limestone "sand," salt, gray, hard, (salt water) .....	29	1,125
Limestone "sand," gray, hard, and medium, (oil) (pay) .....	40	1,165
Limestone, rotten, gray, soft .....	5	1,170
Limestone "sand," gray, medium, (oil (pay)) .....	15	1,185
Shale, hard, light, medium .....	4	1,189
Total depth .....		1,189

NOTE—The Devonian-Silurian contact occurs within the 40 feet of limestone above 1,165 feet in depth.

### Log No. 1196

William Adams, No. 1, lessor. Location: Torrent District. Completed: May 16, 1917. Initial production: 65 bbls. oil. Authority: The Superior Oil Corporation.

#### Strata.

Pennsylvanian System.	Thickness	Depth
Sandstone, shale and coal .....	335	335
Mississippian System.		
Limestone (Big Lime) .....	100	435
Shale, gray .....	30	465
Shale, white .....	460	925

#### Devonian System.

Shale, black (Chattanooga) .....	155	1,080
Fire clay .....	15	1,095
Limestone "sand," (oil show 1,114, water 1,124) .....	70	1,165
Total depth .....		1,165

NOTE—The base of the Devonian occurs at the top of the last one-third of the last 70 feet of limestone.

**Log No. 1197**

William Adams, No. 3, lessor. Location: Torrent District. Completed: Jan. 12, 1918. Initial production: 40 bbls. oil. Authority: The Superior Oil Corporation.

Strata.

Pennsylvanian System.	Thickness	Depth
Sandstone, shale and coal .....	340	340

Mississippian & Devonian Systems.

Limestone (Big Lime) .....	100	440
Rock, green .....	30	470
Sandstone and shale and fire clay .....	624	1,094
Limestone (cap rock) .....	3	1,097
Limestone "sand," (salt water 1,127) .....	65	1,162
Total depth .....		1,162

The well showed lots of gas.

NOTE—The base of the Devonian occurs at about the top of the last one-third of the last 65 feet of limestone.

**Log No. 1198**

William Adams, No. 4, lessor. Location: Torrent District. Commenced: Nov. 25, 1917. Completed: Dec. 22, 1917. Initial production: about 90 bbls. oil. Commenced producing: Dec. 23, 1917. Authority: The Superior Oil Corporation.

Strata.

Pennsylvanian System.	Thickness	Depth
Sandstone, shale and coal .....	344	344

Mississippian System.

Limestone (Big Lime) .....	146	490
Shale .....	470	960

Devonian System.

Shale, brown, and fire clay (Chattanooga) ....	171	1,131
Limestone "sand," (oil) .....	59	1,190
Total depth .....		1,190

NOTE—The base of the Devonian occurs toward the base of the last 59 feet of recorded limestone.

**Log No. 1199**

R. H. Taulbee, No. 1, lessor. Federal Oil Corp., lessee. Location:  $3\frac{1}{2}$  mi. south of Campton on Upper Devil's Creek. Commenced: Aug. 22, 1921. Completed: Sept. 19, 1921. Production: Gas, 50,-000 cu. ft. est. &  $\frac{1}{2}$  bbl. natural. Rig: 28 star. Driller: Glenn McCoun, Campton.

Strata.

Pennsylvanian System.	Thickness	Depth
Soil .....	5	5
Sandstone & Shale (Mountain Sand) .....	285	290
Mississippian System.		
Limestone, (Little Lime) .....	35	325
Shale, blue, soft .....	30	355
Limestone (Big Lime), (cased 445) .....	90	445
Sandstone (shaly), gray-green .....	502	947
Devonian System.		
Shale, black (Chattanooga) .....	200	1,147
Shale, white (fire clay) .....	20	1,167
Shale, brown .....	10	1,177
Limestone (cap) .....	1	1,178
Limestone (gas "sand") .....	10	1,188
Limestone .....	$5\frac{1}{2}$	1,193 $\frac{1}{2}$
Limestone (oil "sand") .....	11	1,204 $\frac{1}{2}$
Limestone .....	$27\frac{1}{2}$	1,232
Limestone, (oil show) .....	$5\frac{1}{2}$	1,237 $\frac{1}{2}$
Limestone .....	$16\frac{1}{2}$	1,254
Total depth .....		1,254

**WOODFORD COUNTY.**

Production: Neither oil or gas. Producing Sand: None recognized.

**Log No. 1200**

United Phosphate & Chemical Co., No. 4, owners and operators. Location: at Wallace Station. Completed: Dec. 1, 1920. Authority: W. R. Golson, mgr.

Strata.

Ordovician System.	Thickness	Depth
Soil, (10 in.) .....	16	16
Limestone, (10 in.) .....	780	796
Limestone, (8 in.) .....	12	808
Limestone, (6 in.) .....	389	1,197
Total depth .....		1,197

NOTES—Small water flow  $1\frac{1}{2}$  gal. per min. at 90 ft. Small dry cavity at 796 ft. Small wet cavity at 1,143 feet, which pumped 30 gal. fresh water per minute. No recognizable oil or gas show.

(THE END)

## APPENDIX

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### List of Commercially Important Oil and Gas Pools in Kentucky.

(Corresponds to numbering of map on page 20).

No. 1, Meade County (old) Gas Field; No. 2, Cloverport (old) Gas Field; No. 3, Hartford Oil Pool; No. 4, Caneyville Oil Pool; No. 5, Leitchfield Oil and Gas Field; No. 6, Bear Creek Gas Field; No. 7, Diamond Springs Gas Field; No. 8, Warren County Oil and Gas Fields; No. 9, Allen County Oil and Gas Fields; No. 10, Barren County Oil and Gas Fields; No. 11, Green River Gas Field; No. 12, Lincoln County Oil Pools; No. 13, Wayne County Oil Pools; No. 14, Knox County Oil and Gas Field; No. 15, Clay County Gas Field; No. 16, Island Creek Gas Field; No. 17, Station Camp Oil Pool; No. 18, Irvine Oil Pool; No. 19, Big Sinking Oil Pool; No. 20, Ross Creek Oil Pool; No. 21, Menifee County Gas Field; No. 22, Menifee County Oil Pool; No. 23, Ragland Oil Pool; No. 24, Campton Oil Pool; No. 25, Stillwater Oil Pool; No. 26, Breathitt County Gas Field; No. 27, Cannel City Oil and Gas Pool; No. 28, Knott County Oil Pool; No. 29, Beaver Creek Oil and Gas Fields; No. 30, Prestonsburg Oil and Gas Fields; No. 31, Burning Fork Gas Field; No. 32, Paint Creek Oil and Gas Field; No. 33, Laurel Creek Oil and Gas Fields; No. 34, Martin County Gas Field; No. 35, Busseyville Oil Pool; No. 36, Fallsburg Oil Pool.



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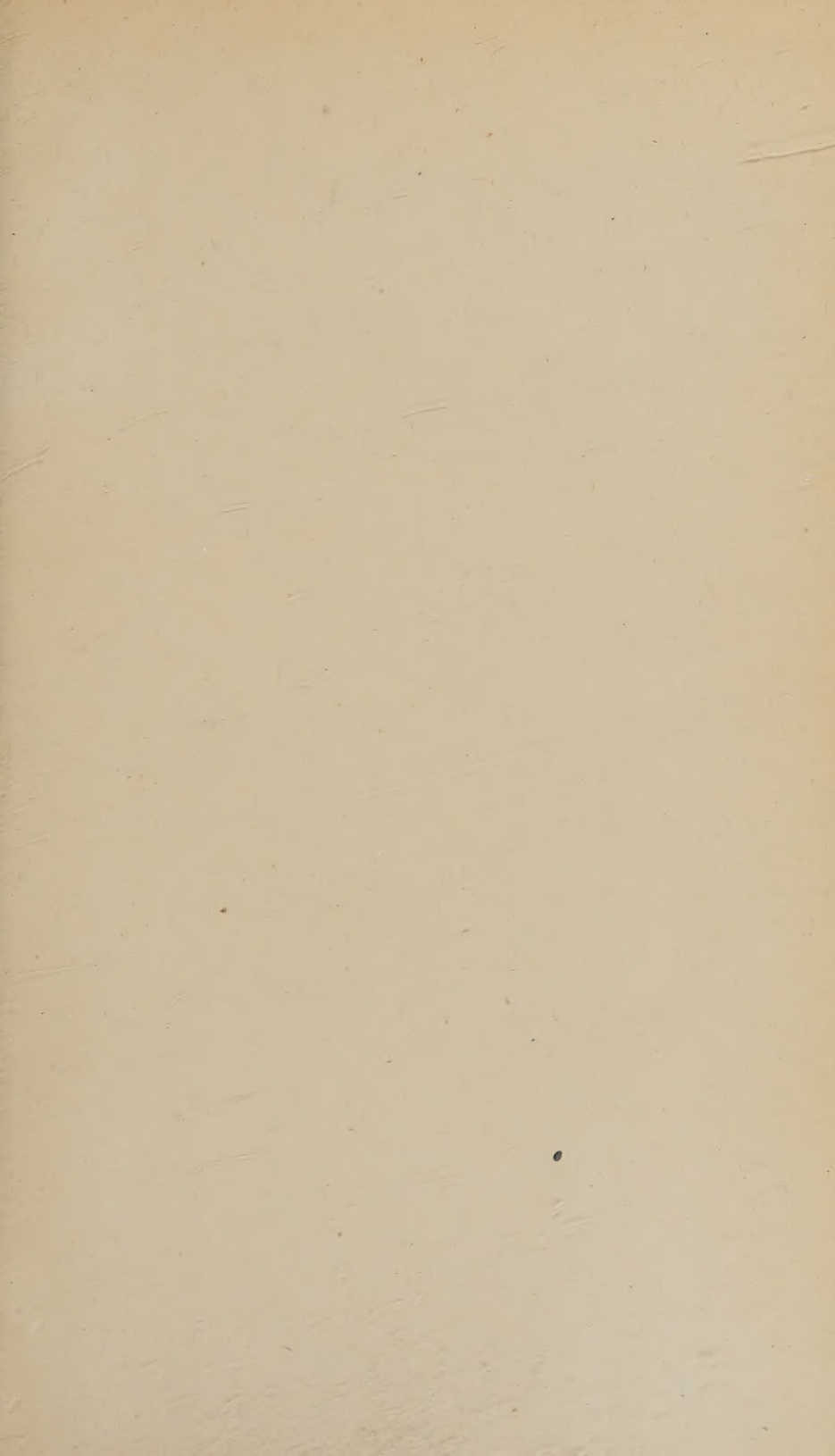
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